



GOVERNMENT REGULATION OF RAILWAY RATES

A STUDY OF THE EXPERIENCE OF THE UNITED
STATES, GERMANY, FRANCE, AUSTRIA-HUN-
GARY, RUSSIA AND AUSTRALIA

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TO MY FATHER

PREFACE

THIS book presents the conclusions forced upon the author by a painstaking study of the railway question extending over some twelve years. That study began with an inquiry into the results of State industrial ventures in Australasia, which he took up with a strong bias in favor of State intervention in industry. As many of the most impressive lessons to be learned from the industrial experiments of the Australasian States are connected with their management of railways, the author was naturally led to make comparisons with the railways of other countries, over which the various governments have exercised some measure of control. The net result has been the disclosure of such overwhelming proofs of the evils of State direction of industry, or interference with its natural course, that he has become firmly convinced of the un wisdom of government regulation of railways or their rates.

The book appears at the present time because of the possibility that Congress, influenced by the discontent that exists in some sections of the country because of the friction necessarily incident to the transaction of the complicated business of transporta-

tion, may be led to enact ill-considered laws granting dangerously enlarged power to the Interstate Commerce Commission. In the discussion of this radical departure from the régime of individualism and industrial freedom under which the United States has attained its crowning position in manufacture and commerce, too little attention has been paid to the lessons that might be learned from the experience of nations which have adopted, in greater or less degree, a policy of government control of transportation.

It seems imperative, therefore, that attention be called to the effect of such government control abroad, to the part which the railroads have played in the industrial development of this country, and particularly to the attitude of the Commission upon questions of railroad practice which are of fundamental importance in the shaping of our industrial future. A fair consideration of these facts and of the conditions under which the railroads must operate to secure their greatest efficiency compels the conclusion that, whatever evils now exist, none of them are at all commensurate with the harm which must result from bestowing the power to fix railway rates upon the Interstate Commerce Commission.

Under these conditions this book is published before the author has been able to carry out his plans for securing additional information, for bringing all statistics down to date and for a more careful ar-

rangement of the materials already at hand. Further delay in publication might have made the book more complete in detail and more readable, but would not have modified the conclusions. The usefulness of the book must, however, depend far less upon form than substance; and the author hopes that the facts here presented may be of service in the present controversy.

The author desires to make acknowledgment of indebtedness to *The Railway Age* for permission to republish the chapters dealing with the experience of Austria-Hungary, Russia and Australia, which appeared originally as part of a series of articles in that journal between July 10 and October 9, 1903, and to *The Railroad Gazette* for permission to include, in much extended form, an article on "Rate Making by Government," which was published in its issue of May 12, 1905.

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INTRODUCTION

THE problem of the public regulation of railway rates is threefold. It involves: first, the question of personal discriminations by means of secret departures from the published rates; secondly, the question of the reasonableness of rates *per se*; and, lastly, the question of the relative reasonableness of rates. Lack of space compels the dismissal of the first and second questions with a few brief statements.

As to personal discrimination, it is clear that to have the Federal Government, or its agent, the Interstate Commerce Commission, exercise the power to make railway rates, would in no way prevent secret rebates. The railways would find it no more difficult to depart secretly from rates made by the Government, or its agent, than they have found it to depart secretly from rates made by themselves. On the other hand, the railway companies would often be under much greater pressure to depart from the rates made by the Government than they would be to depart from those made by themselves; for it is the verdict of all experience that Governments will not, and cannot, make railway rates that will meet the needs of expanding trade and industry. Some

astounding chapters from that experience will be found in the following pages.

The second problem, that of the reasonableness of rates *per se*, has all but disappeared in the United States. The Annual Report for 1898 of the Interstate Commerce Commission contains the statement: "It is true, as often asserted, that comparatively few of our railway rates are unreasonable in and of themselves — that is, without reference to other charges made by the same carrier, or to those of other carriers. . . . The cases are exceedingly rare in which unreasonableness has been found merely from the amount of the rate itself as laid upon the particular traffic and the distance it was carried." In March, 1898, the Chairman of the Interstate Commerce Commission testified before the Senate Committee on Interstate Commerce that the question of excessive railroad charges — "that is to say, railroad charges which in and of themselves are extortionate — is pretty much an obsolete question." It is true that a great deal has been made of the increases in railway freight charges made by the railway companies in 1900 and the subsequent years; and it has been alleged that the increase in the average receipts per ton-mile of freight carried, from 0.724 cent in 1899 to 0.757 cent in 1902, and to 0.763 cent in 1903, compels the conclusion that there is danger lest the recent consolidations of railways result in extortionate charges. President Hadley, of Yale University,

after considering the evidence, expressed himself upon this point as follows:* "It is, I think, clear that the tendency for creating artificial monopolies in railroad business (as distinct from that inevitable monopoly which is due to the needs of concentrated service) has not been so great as in many other lines of industry during the last decade; and that railroad monopoly should, under these circumstances, not be treated as a thing repugnant to general business usage, but as a part of the industrial system of the country. . . . I believe also that there has been far less of extortionate profit in connection with railroad monopoly than has been incident to most other kinds of industrial combination. While a figure of \$560,000,000 of net earnings for 1902 or of \$590,000,000 for 1903 looks large when taken by itself, it must be remembered that these earnings represent an income on an investment of more than \$10,000,000,000 of capital.† And it must be remembered that, as against these two good years,

* *Boston Evening Transcript*, April 1, 1905; reprinted in *Hearings before the Committee on Interstate Commerce, United States Senate*, May 9, 1905.

† In a footnote Mr. Hadley adds: "The nominal figure of capital stock and bonded debt for the 206,000 miles of railroad in the United States is about \$13,000,000,000. Very considerable parts of these stocks and bonds are, however, represented by unissued securities held in the treasuries of companies, which would probably reduce the figure of outstanding capitalization to a point between \$11,000,000,000 and \$12,000,000,000. How much of this last-named amount is 'water' is a matter of opinion, on which it will be impossible to arrive at a definite result. But taking the railroads of the United States as we see them, I am confident that it would be quite out of the question to duplicate them for an average of \$50,000 a mile; and this figure applied to the whole system would represent a legitimate cost of at least \$10,300,000,000."

where the roads have earned 5.5 per cent, there was a whole series of bad years from 1893 to 1898, when they were earning only 3.5 per cent; and that these profits represent only the apparent net earnings — not the sum actually paid out in interest and dividends, which is considerably smaller.”

“It seems also clear that the increase in average rates is apparent only and not real. If the price of goods carried and wages of railroad laborers and the cost of materials of railroad construction and operation have increased from 10 to 40 per cent, an increase of apparent charge of 5 per cent on the part of the railroads is virtually a tremendous and gratifying decrease. . . .” In other words, Mr. Hadley found that, as a whole, the increases made in 1900 and the subsequent years come clearly within the statement made in the Annual Report, for 1903, of the Interstate Commerce Commission: “When reductions in railway rates have been made on account of commercial depression, it is difficult to see why corresponding advances may not properly be made with the return of business prosperity.”

This preliminary discussion, then, may be summarized in the statements that the evil of personal discriminations by means of secret rebates calls for such police regulations as are contained in the so-called Elkins law, and not for the exercise by the Government of the power to make rates; and that

*Police Measures
are required—
not Government-
made Rates*

there neither has been, nor is now, any such charging of extortionate rates as would warrant the Government in assuming the power to prescribe rates.

Let us turn, then, to our subject proper — the question whether the Government should exercise the power to prescribe railway rates, for the purpose of guaranteeing the relative reasonableness of the rates made by the railways leading from rival producing and distributing centres to common markets and to rival markets. To this question the answer of all experience is: Every effective effort to regulate railway rates in general will arrest the decline of rates, by producing a dead-lock of conflicting sectional interests, will prevent the railways from developing a volume of traffic sufficiently large to justify the maintenance or the building of railways of the highest attainable efficiency, will check the development of the resources of the country and will demoralize the politics of the country.

It may be objected that we have had in this country much regulation of railway rates, by State Commissions as well as by a Federal Commission, and that none of these evil results have appeared. The reply is that the Constitution of the United States and the Supreme Court of the United States have thus far protected us from what would have become disastrous regulation by State legislatures, State railroad commissions and the Interstate Commerce Commission. Very nearly every State legislature

and State railroad commission that has pursued an aggressive policy has proceeded all but exclusively on these two considerations: that rates must be adjusted on the basis of the distance tariff, and that the trade and industry of its State must be protected against competition from the trade and industry of other States. That the results have not been so disastrous as to become apparent to all, is due to the fact that the Federal Constitution limits the activity of State legislatures and State commissions to intra-State traffic. The Interstate Commerce Commission has condemned nearly every one of the rate practices by which the railways have knit our vast territory into the most compact trading body in the world and have forced the development of our resources, until our country has become to Europe a source of wonder and despair.

In Continental Europe the regulation of railway rates by public authority has reduced the railway manager largely to a man who sits in his office and orders his subordinates to run trains back and forth. In America the absence of restriction upon the railway manager — beyond that imposed by the common law — has allowed the American railway manager to become the most powerful single factor in our national life for the discovery and the development of the resources of our country, and the pro-

*The Railways
our Greatest Pro-
moters of Trade*

motion of trade and industry. To promote the settlement of vast stretches of unoccupied lands, and to find ever new resources to develop within the territory already occupied, has for half a century been the main business of the American railway manager. The imagination displayed by the American railway manager in discovering potentialities of industry and trade, and in converting those potentialities into actualities, has been equal to the highest flights of imagination of the great inventors and scientists; while the boldness with which he has sought to realize his "visions" has rivalled that of the great soldiers and statesmen. And this American railway manager, who, though holding no public office, has been a builder of empires, the Interstate Commerce Commission would confine to the mechanical task of running trains back and forth for the purpose of carrying such freight as can be moved under a system of railway rates that takes no cognizance of "commercial considerations." For his guidance it would set up the monstrous doctrine that to every producer and trader must be conserved the advantages "accruing to him by virtue of his geographical position" — in other words, the doctrine that no producer or trader may be relieved of the disability under which he labored by virtue of his geographical position in the days before the railroad had annihilated distance.

The Supreme Court of the United States, however,

construing the Act to Regulate Commerce in accordance “with the genius of our institutions,” has held that that act was enacted “to promote and facilitate commerce, not to hamper or destroy it,” and therefore has overruled the Interstate Commerce Commission, time and again, on questions of law, as well as on questions of fact. The Interstate Commerce Commission has construed the Act to Regulate Commerce, and has weighed the evidence on which have turned questions of fact, not in accordance with the established law of this country, or with the spirit of its institutions, but in accordance with what, in its Annual Reports to the Senate and the House of Representatives, it has been pleased to call “theories of social progress.” For these “theories of social progress” the Supreme Court could find no warrant either in the letter of the law or in the spirit of our institutions. Therefore it has overruled the Interstate Commerce Commission on questions of law, as well as on questions of fact; and therefore, also, it has not hesitated to add its emphatic disapproval of the public policy underlying “the theories of social progress” which the Interstate Commerce Commission had sought to make into the law of our country, by assuming that Congress had conferred upon it the legislative power to make railway rates — that is, the power not only to judge the facts in accordance with the established law, but also to

make and to change that law in accordance with such "theories of social progress" as it has evolved from time to time.

The construction which the Supreme Court of the United States has put upon the Act to Regulate Commerce is that, "subject to the two leading prohibitions that their charges shall not be unjust or unreasonable, and that they shall not unjustly discriminate so as to give undue preference or disadvantage to persons or traffic similarly circumstanced, the act to regulate commerce leaves common carriers, as they were at the common law, free to make special rates looking to the increase of their business, to classify their traffic, to adjust and apportion their rates so as to meet the necessities of commerce and of their own situation and relation to it, and generally to manage their important interests upon the same principles which are regarded as sound, and are generally adopted, in other trades and pursuits. The carriers are better qualified to adjust such matters than any court or board of public administration; and, within the limitations suggested, it is safe and wise to leave to their traffic managers the adjusting of dissimilar circumstances and conditions to their business."

"The last sentence in this extract is objected to by the Commission's counsel, as declaring that the determination of the extent to which discrimination is justified by circumstances and conditions should be left to the carriers. If so read, we should not be

ready to adopt or approve such a position. But we understand the statement, read in the connection in which it occurs, to mean only that, when once a substantial dissimilarity of circumstances and conditions has been made to appear, the carriers are, from the nature of the question, better fitted to adjust their rates to suit such dissimilarity of circumstances and conditions than courts or commissions; and when we consider the difficulty, the practical impossibility of a court or a commission taking into view the various and continually changing facts that bear upon the question, and intelligently regulating rates and charges accordingly, the observation objected to is manifestly just. But it does not mean that the action of the carriers, in fixing and adjusting the rates, in such instances, is not subject to revision by the Commission and the courts, when it is charged that such action has resulted in rates unjust or unreasonable, or in unjust discriminations and preferences.”*

It is the purpose of this book to set forth the facts that have led the author to the conclusion that the Government can regulate railway rates in such manner as to conserve and promote the public welfare only in so far as it shall regulate these rates in the spirit of the foregoing quotation from the decision of the Supreme Court of the United States, in

* *United States Reports*, Vol. 168, *Interstate Commerce Commission v. Alabama Midland Railway*.

Interstate Commerce Commission v. Alabama Midland Railway Co. For the purpose of regulating the railway rates in that spirit, it is not necessary that the Government, either in its own person or in the person of its agent, the Interstate Commerce Commission, should exercise the power to fix a railway rate or railway rates.

PART I

GERMANY, FRANCE, AUSTRIA-HUNGARY,
THE DANUBIAN PRINCIPALITIES, RUS-
SIA AND VICTORIA AND NEW SOUTH
WALES, AUSTRALIA

CHAPTER I

THE CONFLICT OF LOCAL INTERESTS

ONE of the principal reasons that led the Prussian Diet, in 1879, to accept the Government's proposal to enter upon the policy of acquiring by purchase or by lease the private railways situated in Prussian territory, was public dissatisfaction with the discriminations in rates which the railways made in favor of what were called competitive points. Very likely German public opinion underestimated the part played by water transportation in the development of competitive points and exaggerated the part played by the railways. However that may be, it was generally believed that the public ownership and management of the railways, supplemented by the uniform classification and the common scheme of charges adopted two years before by all German railways (both state and private), would afford a way out of the evil, as it was regarded, of local discrimination.

The scheme of charges adopted in 1877 imposed a terminal charge for loading and unloading, combined with a haulage charge of a fixed sum per ton-

the Prussian Government's fear of temporary or permanent loss of revenue; the other, the jealousy of the sectional interests and trade interests that are concerned about the preservation of the established course of trade and industry, and are anxious to prevent that increase of competition between rival producing and distributing centres which would inevitably come about with the development of long-distance traffic.

The nature and effect of this conflict of local interests is illustrated by the history of railway rates on grain, on beet sugar and on iron ores. In 1888 the agricultural interests of eastern Prussia petitioned the Government to reduce by 66 per cent the haulage charges on grain, which had remained unchanged, since 1877, at 1.557 cents per ton-mile.* The petition was denied, on the ground that the reduction would constitute an inequitable departure from the scheme of uniform rates, since it would benefit the landholders of eastern Prussia at the expense of those of central and western Prussia, whose markets would thus be opened to eastern grain.† In 1891, nevertheless, extended crop failures induced the Prussian Government to lower the rates on grain, in the interest of the mining and

* The German pfennig-per-metric-ton-kilometre statistics are converted into cent-per-short-ton-mile statistics by multiplication by 0.346.

† H. Braessicke: *Die Reform der Eisenbahnguetertarife*.

factory population of the Rhine Provinces. The haulage charges were lowered to 1.038 cents per ton-mile for that part of the haul comprised between 125 miles and 187 miles, and to 0.692 cent for that part of the haul which exceeded 187 miles. The amount of grain shipped upward of 125 miles thereupon rose in proportion to the total amount shipped, from 10 per cent in 1890-91 to 13.4 per cent in 1891-92, and to 20 per cent in 1892-93. For flour the corresponding figures were 17 per cent in 1890-91, 20 per cent in 1891-92 and 28 per cent in 1892-93.* The Government of Saxony (a state situated halfway between the grain-growing regions of eastern Prussia and the Rhine Provinces of Prussia) immediately protested that the farmers and millers of Saxony had a natural right to supply the Saxon demand for grain and flour, and that they, therefore, should not be exposed to competition from Prussian farmers and millers. The states of Bavaria, Wuerttemberg and Baden also lodged similar complaints on behalf of their farmers and millers. The millers of Duisburg, Mannheim and other points on the Rhine said that at the risk of their capital they had built up a great business in importing grain from the United States, Argentina and Russia and converting it into flour for the mining and factory population of Rhenish Prussia; that they had a natural right to the trade of Rhenish

* *Zeitung des Vereins Deutscher Eisenbahnverwaltungen*, July 5, 1893.

Prussia and must not be made to suffer competition from the millers of eastern Prussia. Finally, the governments of Saxony, Baden, Wuerttemberg and Bavaria having notified the Prussian Government that their representatives in the Reichstag and Bundesrat would not vote for the Imperial bill authorizing a commercial treaty with Russia unless the tapering rates on grain should be discontinued, in April, 1894, the old rates of 1.557 cents per ton-mile (to go into effect September 1) were restored.* A few days after this event, at a session of the Committee of the Prussian Diet appointed to report upon the Government's canal bill, Mr. von Thielen, Minister of Public Works, said that politically and economically the West had made a mistake in insisting upon the repeal of the tapering rates on grain. And there have been numerous other official acknowledgments that the repeal of the tapering rates on grain was the price paid for the votes required to pass the bill authorizing the commercial treaty with Russia.

* *Zeitung des Vereins Deutscher Eisenbahnverwaltungen*, February 15 and 21, 1894; December 16, 1896; March 1, 1899; *Jahrbuch fuer Gesetzgebung, Verwaltung und Volkswirtschaft*, 1899, p. 385; G. Gothein: *Der Deutsche Aussenhandel*; H. Haeller: *Studien ueber den deutschen Brot-Getreidehandel in den Jahren 1880-99, insbesondere ueber den Einfluss der Staffeltarife und der Aufhebung des Identitaetsnachweises*; and Mr. Braesicke in *Zeitschrift fuer Binnenschifffahrt*, 1901, Heft 5. Cf. E. von Eynern: *Zwanzig Jahre Kanalkaempfe*. Ein Beitrag zur Geschichte des Deutschen Parteiwesens.

Mr. von Eynern was chairman of the committee of the Prussian House of Representatives appointed to report upon the canal bills of 1899 and 1901.

In May, 1895, Mr. von Thielen stated in the National Railway Council that under existing railway tariffs 125 miles appeared to be the maximum distance that grain for domestic consumption could be transported by rail.* This means that in Germany grain and other farm products for domestic consumption can reach distant markets only when they can be sent by water. From the place of production they are carried, generally by rail, to the nearest waterway; and at the end of the journey by water are again transshipped to the railway. Oftentimes such freight passes from some river to the sea and then back to some other river, the cost of the successive transshipments constituting a large part of the total cost of transportation.† For example, grain raised in eastern Prussia may go to Danzig by combined rail and water route, thence by sea to Rotterdam, thence by river vessel up the Rhine to Ruhrort, and thence by rail to the centre of the Ruhr district. The cost from Danzig will be 11.50 marks per ton; the cost of an all-rail shipment would be 44 marks. Again, grain may go in 200-ton vessels from Bromberg, in Posen, by way of the rivers Netze, Warthe, Oder, Havel, Spree and Elbe to Hamburg, thence by sea to Rotterdam, and thence by river and rail to the heart of the Ruhr

* G. Zoepfl: *Die Eisenbahntarifpolitik*, besonders im Holzverkehr.

† *Zeitung des Vereins Deutscher Eisenbahnverwaltungen*, July 30, 1898.

district, at a cost of 15.80 marks as against a cost of 38.30 for the direct all-rail shipment.*

The iron and steel producing region, known as the Ruhr district, lying immediately to the east of the Rhine and north of Cologne, between the rivers Ruhr, Emscher and Lippe, has a population of about two and one-half millions, and is, therefore, an important market for grain and flour. In 1899 the leading agricultural regions of Pomerania, East and West Prussia and Posen sent by rail into the Ruhr district 100 metric tons of grain and 500 tons of flour. Whatever other grain and flour these regions sold to the Ruhr district was shipped, as already indicated, by way of Danzig, the Baltic, the North Sea and the Rhine, or by way of the Warthe, Oder, Elbe, North Sea and the Rhine. The total grain and flour carried into the Ruhr district during this year from eastern Germany, Russia, South America and the United States, by way of the Rhine, amounted to 693,000 tons. By rail there was carried into this district only a total of 150,000 tons of grain and flour, and this almost altogether from the near-by districts of Rhenish Prussia, Westphalia and Hannover.†

* Sympher: *Die Wirthschaftliche Bedeutung des Rhein-Elbe-Kanals*.

† *Statistik der Gueterbewegung auf Deutschen Eisenbahnen*, 1899, and *Die Binnenschifffahrt im Jahre 1899, Statistik des Deutschen Reichs*, Neue Folge, Vol. 131. Compare also, Sympher: *Die Wirthschaftliche Bedeutung des Rhein-Elbe-Kanals*; 2 volumes, 20 marks. Not a public document, but issued with the consent of the Minister of Public Works. The author is Baurath in the Department of Public Works, and had charge of the collection of the data upon which the recent canal bills were based. *Die*

On grain and flour the charge by rail from Rotterdam to the Ruhr district, 134 miles, is 7.50 marks; by way of the Rhine it is 2 marks. From Rotterdam to Mannheim, 312 miles, the charge by rail is 18.40 marks; by way of the Rhine it is 4 marks. In 1896 wheat was carried to Mannheim by water from Braila, Roumania, for 25 marks per metric ton; from Nikoljew, Russia, for 19 marks; from Buenos Ayres for 25 marks; and from New York for 15 marks. At the same time an all-rail shipment to Mannheim would have cost from Munich 17.60 marks; from Berlin 30 marks; and from Koenigsberg 56.30 marks.*

It is, therefore, not surprising that in this condition of affairs Mr. von Thielen should open the debate upon the Government's canal bill in 1899 with the statement that for many purposes of trade eastern Germany and Rhenish Prussia were farther apart than Germany and New York or Germany and Buenos Ayres. He might have added that, when the experimental tapering rates on grain for domestic consumption were withdrawn in 1894, an export bounty on grain of about 35 marks per metric ton was established, by way of compensation to the eastern landowners;† that in 1895 the haulage

Wasserwirthschaftliche Vorlage, by the same author, costs but a mark and a half, and gives, within the compass of 150 pages, a good account of the traffic on the German waterways.

* Sympher: *Die Wirthschaftliche Bedeutung*, etc.; P. Mohr: *Die Entwicklung des Grossbetriebs in der Getreidemuellerei Deutschlands*.

† Conrad's *Handwoerterbuch der Staatswissenschaften*: article *Identi-*

charges on grain for export were reduced to 0.495 cent per ton-mile for that part of the haul exceeding 62.5 miles; and that, since 1895, Germany had afforded the curious spectacle of exporting each year from its eastern provinces to Norway, Sweden and England several hundred thousand tons of bounty-fed wheat and rye, while importing at the same time into Rhenish Prussia, over a protective tariff of 35 marks per ton, about 2,700,000 tons of wheat and rye grown in Russia and in North and South America.*

It was not until 1901 that the old rate of 1878 on raw beet sugar of 1.557 cents per ton-mile, exclusive of terminal charges, was reduced. Between 1880 and 1899 the Magdeburg (Elbe district) price of raw sugar fell from 660 marks per metric ton to 220 marks. In May, 1896, when the price of raw sugar stood at 201.50 marks per ton, the Imperial

*The Conflict over
Sugar Rates*

täts-Nachweis; and H. Hailer: *Studien ueber den Deutschen Brot-Getreide-handel*.

* *Volkswirtschaftliche Chronik fuer das Jahr 1900*, reprinted from *Jahrbucher fuer Nationalökonomie und Statistik*.

AVERAGE ANNUAL EXPORTS IN METRIC TONS

	WHEAT	RYE	OATS
1890-93	270	350	390
1894-96	74,700	41,300	34,800
1897-99	167,900	120,000	45,700
1900	295,000	76,000	108,000

Reichstag raised the export bounty on sugar from 12.50 marks per ton to 25 marks; and in order to provide the means for the payment of the bounty, it raised the tax on the domestic consumption of sugar from 1.95 cents per pound to 2.16 cents. The Government stated at the time that the cost of production of beet sugar was 230 to 240 marks per metric ton, and that it would not be possible to reduce that cost materially by further economies in production. In February, 1898, Privy Government-Councillor Professor Maerker declared in the session of the *Deutscher Landwirthschaftsrat* that the growth of the manufacture of beet sugar (apart, of course, from bounty stimulation) had become entirely a question of the cost of the transportation of the raw materials and the finished product.

Meanwhile, in 1893, the sugar manufacturers of the Prussian province of Silesia asked the Prussian Government to reduce railway charges by establishing tapering rates. They pointed out that sugar was carried from Frankfort-on-the-Main by way of the Main and the Rhine to Amsterdam, and by these rivers and the sea to Hamburg, in 4 and 9 days, respectively; and from Laube-Tetschen, the head of navigation on the Elbe, to Hamburg in 8 to 10 days. The producers on the Rhine and the Elbe could sell sugar in Hamburg on 10 to 12 days' delivery, and were thus in a position to take advantage of slight fluctuations in the market. Not so

the Silesian producers, who had to allow three to four weeks for the shipment of sugar to Hamburg *via* the Oder and the Elbe. Again, the Hamburg exporters preferred sugar that could be had at all times of the year and delivered without fail on the date agreed upon. Both of these facts were against the Silesian producer, since the traffic on the Oder was more liable to interruptions from low water or from ice than was the traffic on the Rhine and the Elbe. For these reasons the Silesian manufacturers of sugar asked the Government for tapering rates, which should put them more nearly on an equality with the manufacturers on the Rhine and the Elbe. They had not been able to use the railways, they said, for the rate by water was only 0.346 cent per ton-mile as against the railway rate of 1.557 cents.*

The sugar producers of the Rhine and the Elbe remonstrated that they had been the pioneers in the

* *Volkswirtschaftliche Chronik*, 1900, p. 365; *Statistik der Gueterbewegung auf Deutschen Eisenbahnen*, 1899; and *Die Binnenschifffahrt im Jahre*, 1899.

In the census year 1895 the area under sugar beets in Silesia and Posen was 237,000 acres, or 24 per cent of the area under beets in the whole of Germany.

In 1899 the sugar crop of Silesia and Posen went to market as follows:—

		<i>From Silesia</i>	To Baltic ports:—	
To Hamburg:—				
By rail	<i>Nil</i>		By rail . . .	1700 tons
By Oder and Elbe . .	184,000 tons		By Oder . . .	<i>Nil</i>
		<i>From Posen</i>		
To Baltic ports:—				
By rail				15,000 tons
By Netze, Warthe, Oder and Vistula				140,000 tons

beet-sugar industry, which they had established at the risk of their capital; that 60 per cent of the raw sugar raised was exported; and that they had a natural right to demand that their share in the export trade should be protected against encroachments from the Silesian producers, who were interlopers. They further maintained that the Silesian producers had gone into the beet-sugar industry with the full knowledge that they would be handicapped by a comparatively long haul to the markets, but believing that the comparatively low price of land in Silesia would more than offset the disadvantages arising from location; and now they had the hardihood to ask the State to relieve them from those disadvantages.

The Chamber of Commerce of Magdeburg and Danzig took a hand in the dispute, protesting that, should the Silesian sugar traffic be diverted from the rivers to the railways, the merchants of Magdeburg and Danzig would lose their trade and commissions. The shipping interests on the Elbe and Oder, also, added that it was unjust for the State to use the State railways to injure or destroy a private industry — navigation upon the rivers and canals. They pointed out that about 75 per cent of the sugar for export arrived at the port of export in river-craft; that about two-thirds of that sugar had gone a short distance by rail to reach the river, but for so short a distance that the sugar traffic upon the railways

was only 38,000,000 ton-miles, *as against a sugar traffic of 144,000,000 ton-miles upon the waterways. The State, they said, had no right to take from the river and canal craft this important traffic. The controversy spread to other districts and other trade interests, and the sectional jealousies and trade jealousies became more complex, as well as more bitter.

While the old dispute was at its height, the Prussian Railway Department made special rates on Russian sugar, in order to divert traffic from the Russian port of Libau to Danzig and Koenigsberg. A fresh storm of indignation broke out; and as the Prussian Diet was not sitting, the fight was transferred to the Imperial Reichstag. The Prussian Minister of Foreign Affairs, who was also a Minister in the Imperial Government, replied to all the objectors that, if the Prussian Railway Department had been in a position to act on its own judgment, it would have lowered the rates on sugar long ago. He must, he said, beg the various parties to the controversy over the freight rates on sugar to come to some agreement among themselves, and thus set his Government free to act.

At last, in April, 1901, the Government took the bull by the horns and reduced the export rates on raw sugar from 1.557 cents per ton-mile to 0.9 cent for the first 62.5 miles of the haul, and to 0.761 cent for that part of the haul exceeding this limit. Nothing short of the absolute necessity of strengthening

the position of German beet sugar in the international markets had sufficed to induce the Government to run the risk of incurring the displeasure of the various interests adversely affected by the change.*

In connection with the beet-sugar industry another trouble had arisen for the Railway Department. The Department had issued laborers' return passenger tickets at reduced rates; and the men and women farm laborers of the districts east of the Oder had made extensive use of these tickets in going each summer to the country along the Elbe for the purpose of harvesting the beet-sugar crop. These harvesting excursions are heaviest from the poorest districts, and they afford the peasants an important means of supplementing their scanty resources. The men earn in the harvest season about 550 marks, the women about 400 marks, making a total of about 34,000,000 marks for the 75,000 men and women engaged. These earnings are frequently laid aside in order to enable the owners to establish themselves upon the *Renten-gueter*, which are small farms let out by the State for a fixed rental in money or grain, with the provision that the rental may be altered only on consent of both landlord and tenant. In 1890 there were enacted still further peculiar

* *Ueber die Detarifierung von Zucker "zur Ausfuhr,"* A. Schulz: Geschäftsführer i. d. Centralstelle der Preussischen Landwirtschaftskammern; *Zeitung des Vereins Deutscher Eisenbahnverwaltungen*, January 2, 1896; September 26, 1900; and March 19, 23 and 30, 1901; *Zeitschrift fuer Binnenschiffahrt*, Heft 9, 1901; and *Speditions- und Schifffahrts-Zeitung*, July 12, 1901.

legal provisions relating to *Renten-gueter* and intended to facilitate the establishment of small farms, through the breaking up of the large landed estates east of the Oder.*

The landed aristocracy of eastern Prussia objected to the issue of these cheap return tickets, on the ground that the annual excursions to Prussian Saxony had raised the wages of farm labor. Accordingly, in a communication from the Prussian Government to the Diet, stating what the Government had resolved to do in response to demands from the Diet, it was announced that the Railway Department would make no new arrangement for the issue of laborers' return passenger tickets for distances exceeding 32 miles, and that the existing arrangements for the issue of such tickets should be discontinued as rapidly as was consistent with the rights of all concerned.† To one interested in the working of politics, it is instructive to see the Prussian Government legislate in 1890 for the purpose of establishing a class of small farmers, and in 1900 issue an administrative order that deprived the farm laborer of an effective means of taking advantage of that legislation.

In addition to the harvesting excursions to the Prussian Province of Saxony, there is a heavy per-

* Conrad's *Handwoerterbuch der Staatswissenschaften: Sachsengaengererei und Rentengueter*.

† *Zeitung des Vereins Deutscher Eisenbahnverwaltungen*, January 17, 1901.

manent movement of people, mainly farm laborers, from the eastern agricultural regions to the industrial and mining regions of Rhenish Prussia and Westphalia, and in a minor degree to Brandenburg and Hannover. In the period between the two censuses of 1882 and 1895 this movement averaged 180,000 people a year for Prussia proper and its provinces, and 270,000 a year for Germany as a whole. In the same period the number of men laborers employed in all industries in Germany increased 16.8 per cent; those in the mining and manufacturing industry, 39.8 per cent. But the men employed in agriculture (farm labor) decreased 10.7 per cent.* It is therefore readily understood why *leutenot*, or scarcity of labor, is the constant cry from the agricultural regions of eastern Germany. It is also readily understood why the Government has to take action, even though the action be diametrically opposed to another branch of its policy.

It is not perhaps so clear why a similar confusion should arise in a single mind, and that the mind of a man of science; yet such is sometimes the case. Indeed, to a considerable degree in Germany, political science but reflects the enthusiasms, the per-

* The average sum paid in wages per man and boy employed in the steel and iron industries in the Ruhr district rose from 953 marks in 1886 to 1073 marks in 1894. Sympher: *Die Wirthschaftliche Bedeutung*, etc. Humann: *Leutenot*; in *Sammlung von Schriften zur Kanalfage*. Mr. Humann's figures are taken from Vol. III of the *Reichsstatistik*.

plexities and the shifty devices of Government. Thus no less a writer than Mr. Buchenberger, President of the Ministry of Finance of Baden, regarded in academic circles as one of the chief authorities in Europe upon agriculture, begins a discussion of the migrating labor movements as related to the scarcity of farm labor* by stating that, for an adequate appreciation of the full significance of these movements, one must remember that they materially raise the standard of living of a large number of poverty-stricken people. They do so, he says, not only by increasing the income of these people from backward districts, but also by bringing them into contact with a higher civilization and thus enlarging their intellectual horizon, to say nothing of teaching them better methods of cultivating the soil. Notwithstanding this weighty consideration, after the admission that it is quite out of the question to have positive police regulation of the migratory movements of labor — no matter how much the eastern landholders might desire it — as being inconsistent with modern principles of individual freedom, Mr. Buchenberger proceeds as follows: "But in consideration of the well-known fact that the eastern landowners are in serious straits, one must respect their wishes that the State take no measures to encourage the migrations in question. From this

* A. Buchenberger: *Agrarwesen und Agrarpolitik*, Vol. I, pp. 590-591.

point of view it is questionable public policy to issue cheap return tickets, since such issue would in effect be a bounty on the export of laborers—a bounty which would give western agriculture, already better off than eastern agriculture, an advantage as to labor supply, at the cost of and to the detriment of the eastern landed interests.”

Let us now turn to the subject of rates and local interests in respect to the industries dependent on iron ores.

The Ruhr district, as already stated, lies to the east of the Rhine and north of Cologne, between the rivers Emscher, Ruhr and Lippe, and is the greatest coal mining and iron and steel producing region of continental Europe. About 220 miles to the southwest are the extensive iron ore deposits of Luxemburg and the Saar district, which furnish precisely the ores needed to supplement the insufficient supply obtainable from the Ruhr district itself. But thus far the Prussian Government has been unwilling to make rates which would permit the shipment of any but selected ores from the Saar to the Ruhr; and in consequence the Ruhr iron interests have been forced to have increasing recourse to the importation of iron ores from Spain and Sweden.

The Arrested Development of the Iron and Steel Industry

At the annual meeting of the German Steel and Iron Association (*Verein Deutscher Eisenhuettenleute*) held in February, 1888,* Mr. Jencke discussed

* *Stahl und Eisen*, March, 1888.

the reasons for the comparative infrequency and smallness of the reductions in railway rates since the nationalization of the railways in 1879. Mr. Jencke had left the service of the King of Saxony, after a distinguished career in the Railway Department, and had become Chairman of the Executive Committee, composed of the heads of departments, of Krupp and Company, the largest steel and iron producers in Europe.* He was also serving at this time on one of the District Railway Councils.† Subsequently he has received several flattering invitations to enter the Prussian Railway Service and has been made a Privy Finance Councillor.

On the occasion here referred to Mr. Jencke said that, if the largest railways had not passed into the hands of the State, the rates on iron ores from Alsace-Lorraine to the Ruhr district would have been reduced, and probably the rates on raw materials generally. Under private ownership it was necessary only to convince a particular railway that a lowering of rates in its territory would increase its traffic and income, and the reduction would follow.

* *Die Industriellen Werke Deutschlands*. On January 1, 1899, there were in the employment of the various Krupp companies 41,750 people.

† The District Railway Councils and the National Railway Council were established by law in 1882. The members of the District Councils are elected by the Chambers of Commerce and by analogous bodies representing the manufacturing, mining and agricultural interests. The National Council consists of 30 members elected by the District Councils and 10 members appointed by the Ministers of Agriculture, Trade, Finance and Public Works. These bodies have advisory powers; and they were established in order that they might keep the administration in touch with the people in matters of railway rates.

But the State could not proceed in that simple way. There were a number of competing coal-mining, iron-mining and iron and steel producing localities and interests all dependent upon one State system of railways. A reduction in rates given to one interest or locality had to be followed by counterbalancing reductions to the others, in order that no one should be given an undue advantage. The various District Railway Councils, as well as specially appointed committees, were constantly engaged upon the most minute investigations into the relative cost of mining coal and iron and producing pig iron at different centres in Germany, with a view to recommending just and relatively reasonable railway differentials; and these investigations inevitably consumed much time and delayed action. Thus, the iron ore interests of Lahn and Sieg had asked for lower rates in 1882, and not until 1886 had the Government felt ready to grant the request. But the general public itself must share with the State the responsibility for such delays. The jealousy of competing producing regions led each region to dispute the figures as to cost of production put forth by the other regions, and the Government found it extremely difficult to make an adjustment of rates satisfactory to each party to the controversy. If the several coal and iron producing regions should fail to curb these local jealousies, the prospect of reductions in rates would be small, for the hands of the Government

would be tied. The existing rates had been in force since April, 1881. In the meantime reductions of all kinds had been effected in the cost of producing pig iron, so that the transportation charges had come to constitute 25 per cent of the cost of making pig iron. That proportion must be contrasted with the 10 per cent borne by the transportation charges to the total cost of producing iron in Great Britain, Germany's principal competitor.*

In the following year, 1889, the Minister of Public Works, Mr. von Maybach, informed the Prussian Diet that the Government's refusal to grant the requests from the Ruhr district for lower rates on Saar iron ores was due to the unwillingness of the Government to prefer the Ruhr to the other iron-producing centres. It would not do to give one district rates which would allow it to grow more rapidly than another district; equal treatment must be accorded to all. Moreover, the Government could not make reductions which would expose it even to the suspicion of preferring one district.†

At about the same time Mr. Todt, who was then in charge of the State railways in the Ruhr district, said that the Government long since would have

* *Zeitschrift fuer Binnenschiffahrt*, 1901, Heft 24. In December, 1901, Dr. Beumer, Editor of *Stahl und Eisen*, and one of the foremost authorities on the German steel and iron industry, stated that in Germany the transportation charges constituted 28 per cent of the cost of producing pig iron as against 10 per cent in England.

† E. von Eynern: *Zwanzig Jahre Kanalkaempfe*. Compare also *Zeitschrift fuer Binnenschiffahrt*, 1901, Heft 7, report of a speech by Mr. von Thielen, Minister of Public Works.

lowered the rate on iron ores from Alsace-Lorraine to the Ruhr had it not been constrained by consideration for the other iron-producing centres of Germany.* He added that the iron traffic in question was about 250,000 tons a year, but that it would rise under favorable railway rates to 1,000,000 tons. He pointed out that in 1888 not less than 44 per cent of the ores shipped from Lorraine to the Ruhr had gone by rail to Oberlahnstein on the Rhine, thence by vessel to Ruhrort and Duisburg, a distance of 120 miles, and thence by rail to the rolling mill, some 10 or 15 miles. As late as 1898 an eminent authority stated that 60,000 coal wagons returned empty each year from the Lorraine district to the Ruhr, and that the net railway revenue would be increased by 3,000,000 marks a year should the Government grant the reduction in iron-ore rates then demanded.†

At the meeting of the *Verein Deutscher Eisenhuettenleute*, held in 1896,‡ Mr. Jencke again discussed the railway situation in its bearing on the iron and steel industry. He began by saying that, if the railways had remained in the hands of corporations, they would have quelled in its infancy the agitation for canals, and would have done it by lowering their

* *Archiv fuer Eisenbahnwesen*, 1888. Compare also the article by Mr. Schmeisser, an official in the Railway Department.

† *Stahl und Eisen*, December 15, 1898. Compare also January, 1891; February, 1893; March, 1895, 1896 and 1898; January 1, April 1 and October 15, 1900; and February 15 and March 15, 1901.

‡ *Stahl und Eisen*, March 15, 1896.

charges to the presumptive canal rates. But the former Minister of Public Works, Mr. von Maybach, had failed to appreciate the country's needs and had run the railways primarily as a revenue-producing concern. The State of Prussia had incurred annually recurring expenditures on the strength of the railway surplus; and the present Minister of Finance, Mr. von Miquel, had repeatedly confessed his inability to grant general reductions in rates demanded by the needs of the industrial community. Moreover, the railway administrators were still confronted by the jealousy of the several iron-producing regions, a jealousy that asserted itself through the machinery of the District Railway Councils and the National Railway Council. For 16 years the Ruhr people had been asking for lower rates on iron ores from Alsace-Lorraine, and obtained nothing. The situation was critical, and there was but one way out of it: the Government must abandon the past policy of trying to hold the balance between the claims of rival producing centres. It ought to announce that it would reduce the haulage charges on all raw materials — not iron and coal only — by 0.0346 cent per ton-mile each year, until the present rate of 0.761 cent should be lowered to 0.415 cent. The State could take steps in advance to meet any anticipated loss of revenue. Upon the public, on the other hand, notice should be served that railway charges on raw materials were to come down auto-

matically each year by a certain amount, without any regard whatever for the effect of those reductions upon the respective abilities of the various producing interests to continue to compete one with the other. This advocacy of a mechanical, all-round reduction in railway rates, as the only way out of the deadlock of local jealousies, makes the report of Mr. Jencke's speech one of the half-dozen most significant documents in the railway literature of the world.

In the Imperial Reichstag, on February 28, 1898, the late Baron von Stumm expressed the opinion that local jealousies constituted the principal obstacle to the securing of lower railway charges. The National Railway Council generally split up into two camps. Either the agricultural interests of the East were pitted against the manufacturing and trading interests of the West, or the central provinces were pitted against the eastern and western ones. These conflicts of sectional interests were especially marked whenever it was proposed to introduce tapering rates. Baron von Stumm was the great rival of the Krupps. He was at the head of the largest coal, iron and steel interests in Alsace-Lorraine, and had been a personal friend, as well as a trusted adviser, of Emperor William I.*

In March, 1899, the official organ of the *Verein Deutscher Eisenbahnverwaltungen*, an organization composed of officers of the various German State

* *Zeitung des Vereins Deutscher Eisenbahnverwaltungen*, March 9, 1898.

railway systems, made the following illuminating comment on the Prussian canal bill. It said that possibly the expenditure upon the Prussian railways of 261,000,000 marks — the estimated cost of the proposed canals — would put those railways in a position to handle all the traffic that these canals were expected to handle. But in any event one must remember that the building of canals would solve the extremely perplexing problem of reducing freight rates in a manner acceptable to the different sections of Prussian territory. In other words, it was thus represented that the advantage of the proposed canals lay in the fact that they would break the local interest deadlock by transferring the responsibility of the odious business of making those local discriminations — which are an unavoidable incident of the progress and development of a country — from the Government to private persons carrying on navigation on the canals and rivers.

Upon the matter of the request of the Ruhr people for lower rates on Saar iron ores, the National Railway Council at last reported favorably in December, 1897. In the following March, the Minister of Public Works, Mr. von Thielen, stated in the Prussian Diet that rarely had a question been studied so thoroughly as this one, and that the claims of the Ruhr people had on the whole been substantiated. A year later, no action having meanwhile been taken upon the report, he cited this state of affairs as a sig-

nificant illustration of the blocking of Government action by local jealousies. Apparently local jealousies alone stood in the way of lower rates, for the Minister of Finance, Mr. von Miquel, had admitted that the lowering of the particular rates in question would result in an increase of revenue. All this time there was a large empty car mileage from Alsace-Lorraine to the Ruhr; for the number of tons of coke sent from the Ruhr to Alsace-Lorraine was from two to three times as large as the number of tons of iron ore sent from Alsace-Lorraine to the Ruhr. In April, 1901, the Government again took up the vexed question, hoping to be able to dispose of it by giving the Alsace-Lorraine people reduced rates on coke, in return for the reduction on iron ores to be given to the Ruhr people. Alarm at the increasing competition from the American steel and iron industry was what induced the Government thus to reopen an annoying controversy.*

The conditions of the problem which here confronted the Government need to be more fully brought out. The Ruhr district and the Saar district in Alsace-Lorraine-Luxemburg produce, respectively, 39 per cent and 36 per cent of the pig iron produced in Germany.† In other words, they are, as iron producers, of equal importance. Yet in

* *Stahl und Eisen*, February 15 and April 1, 1900; and March 15, 1901; and *Zeitung des Vereins Deutscher Eisenbahnverwaltungen*, March 30, 1898; March 8 and April 29, 1899; and April 13, 1901.

† *Stahl und Eisen*, February 15, 1901.

1899 the Ruhr district sent by rail into the territory which extends from Bremen and Hamburg, in the west to Königsberg in the east 394,000 tons of manufactures of steel and iron, whereas the Saar district sent only 85,000 tons. Again, to the important territories comprising the provinces of Brandenburg and Saxony, the Duchy of Anhalt and the Thuringian States, the Saar region sent only 108,000 tons of iron and steel, whereas the Ruhr district sent 480,000 tons. In other words, so far as trade dependent on the railways is concerned, the Saar district is almost shut out from northern, central and eastern Germany. On the other hand, it has practically a monopoly of the iron and steel trade with southern Germany and Switzerland. In 1899 it sent into Alsace, the Bavarian Palatinate, the Grand Duchy of Hesse, Wuerttemberg, Bavaria and Switzerland a total of 627,000 tons of manufactures of steel and iron, whereas the Ruhr district shipped only 159,000 tons. Similarly, the iron and steel producers of the Province of Silesia have a monopoly of the trade of Silesia, Posen, parts of East Prussia and the foreign territory lying immediately to the east of Silesia.*

This apportionment of the trade of Germany among the several producing and distributing centres, making them comparatively non-competing

* *Statistik der Güterbewegung auf Deutschen Eisenbahnen, nach Verkehrsbezirken geordnet, 1899.*

groups, is common to all articles of trade which are bulky and comparatively low-priced. It is broken down in places by the waterways and by the occasional wide differences in the cost of production of an article in different centres of production. For instance, the Saar district sends considerable quantities of steel and iron into the interior of Germany by way of the French and Belgian canals and rivers, the North Sea, the Baltic and the German rivers. This trade amounts to about 50 per cent of that which goes directly by rail.* Again, Thomas-process pig iron and puddle iron are produced much more cheaply in the Ruhr than in Silesia, and therefore the Ruhr iron and steel manufacturers sell these particular products rather freely in the territory otherwise reserved to the Silesian iron and steel industries.

In spite of these exceptions and similar ones in other industries, it remains true that the scheme of railway rates based on a uniform haulage charge per ton-mile does to a remarkable degree apportion the trade of Germany in a mechanical way among the several producing and distributing centres. This scheme separates the different sections of Germany, one from the other, in the same way as did the customs barriers which the several German States

* *Zeitschrift fuer Binnenschiffahrt*, 1901, Heft 11; and *Statistik der Gueterbewegung auf Deutschen Eisenbahnen*, 1899 and 1900.

maintained one against the other up to the time of the formation of the North German *Zollverein* or customs union, which last was extended and perpetuated by the German Empire, created in large part for that very purpose. The opposition to-day under the Empire to the introduction of tapering rates and rates based on the principle of charging what the traffic will bear is, indeed, precisely the same kind of opposition as that which had to be overcome before the *Zollverein* itself could be established.* The situation was described in 1894 by the Minister of Finance, in the following terms: "This opposition of the agricultural interests of the West to tapering rates is but one of many illustrations of the unexpressed desire of the various sections of the Empire to reestablish sectional protection by means of the regulation of railway rates. If that desire is allowed to realize itself, we shall return to the conditions of 1820. A unified State cannot undertake to balance the interests of one section against those of another. The Prussian railways were consolidated under the State in order that they might promote trade throughout the length and breadth of the land. If their efforts to develop trade and industry are to be defeated by local jealousies,

* F. Ulrich: *Staffeltarife und Wasserstrassen*; and *Staatseisenbahnen, Staatswasserstrassen, und die Deutsche Wirtschaftspolitik*. Compare also Sympher: *Die Wirthschaftliche Bedeutung*, etc.; *Stahl und Eisen*, January, 1899.

German industry will be distanced by the industries of other countries." *

Tapering rates and rates based on what the traffic will bear would lead to an extraordinary development of trade and railway traffic in Germany. Their introduction would go far toward making the whole of Germany into a common market, to which the different producing and distributing centres would have access, and thus give producers and consumers the benefits of competition which now exists only in a modified form. Manifestly many resources that now lie unused would be developed. On the other hand, many vested interests in trade and industry dependent for their existence upon the new form of sectional protection would suffer. The Prussian Government has been too careful of those interests, failing to realize that the progress and development of a country means necessarily the destruction of property values in one place and the building up of property values in another. Furthermore, the Prussian Government has found that constituencies carry their grievances concerning the management of the railways into Prussian State politics, or into German national politics, to the extent of making the assent of their parliamentary representatives to

* Quoted from the debates in the Prussian Diet by E. von Eynern in *Zwanzig Jahre Kanalkämpfe, ein Beitrag zur Geschichte des Deutschen Parteiwesens*.

Mr. von Eynern was Chairman of the Parliamentary Committees appointed to report upon the recent Prussian canal bills.

measures of first importance proposed by the Prussian Government, or by the Imperial Government, conditional upon what shall or shall not be done in respect to railway rates. That practice has so embarrassed the Prussian Government that the latter has repeatedly abstained from making reductions in rates, even after it had been thoroughly convinced that the reductions contemplated were demanded by the permanent interests of trade and industry. Finally, the Prussian Government has for years treated the railways as a source of revenue, upon which it could draw in order to avoid the necessity of asking Parliament for additional taxes or in order to remit taxes in Prussia, in return for Prussian support in the Imperial Reichstag. This complication has oftentimes made it inconvenient to reduce railway rates; and at such times the Government has sought shelter behind the local jealousies, playing off one section of the country against another. But of this matter of dependence on railway revenue, more will be said in a subsequent chapter.

CHAPTER II

LOCAL AND PERSONAL DISCRIMINATION

WHEN the railways of Prussia, previously to nationalization, adopted in 1877 a uniform classification of freight and a common scheme of railway charges, they realized, of course, that it would be impossible to adhere absolutely to a hard and fast system of rates. Accordingly, they provided that what are known as exception tariffs should be made whenever the needs of trade and industry should demand. Under that arrangement the State railways and the private railways, particularly the latter, retained many of the special rates that had been in force previous to 1877. The private railways also continued the practice of making secret rates.

Hence, when the Prussian Government, in 1880 and the years immediately following, acquired the private railways, it found many of these special and secret rates in force. Care was taken in abolishing these rates, in order to avoid sudden and violent dislocations in the established course of business. In 1882, however, the Government took an important step, and did away entirely with the special rates on

imported grain and flour from Bremen and Hamburg to Rhenish Prussia and Westphalia;* it instructed the Railway Department not to swamp the home industries by flooding the country with the surplus produce of foreign countries. Two years later, in October, 1884, the Minister of Public Works laid down the general principles that were to guide the Railway Department in making exception tariffs.† Manufacturing and agriculture were to be fostered by low rates on raw materials; the products of domestic industries were to have special rates when shipped to points in Germany at which foreign competition had to be met; German export trade was to be encouraged; and German agencies of transportation, particularly the State railways, were to be protected against competition from foreign railways and foreign waterways.

In the eleven years ending with 1896-97, fully one-half of the traffic on the Prussian railways was carried at "exception rates"; and since 1897 the proportion has risen to 60 per cent.‡ The "exception rates," however, apply the principle of tapering rates to a very slight extent only, and they have,

* *Zeitung des Vereins Deutscher Eisenbahnverwaltungen*, September 3, 1898; and *Archiv fuer Eisenbahnwesen*, 1901, Heft 2.

† *Eisenbahntarife und Wasserfrachten*, issued by the *Verein fuer Sozialpolitik*.

‡ *Zeitung des Vereins Deutscher Eisenbahnverwaltungen*, June 11, 1898; or *Bulletin of the International Railway Congress*, January, 1899. The British Blue Book, Commercial No. 2, 1898, *Bounties to Ships and Preferential Railway Rates*, gives a list of the exception rates in force in 1897.

therefore, not met the pressing need in Germany—namely, the development of long-distance traffic. To illustrate: from 1889 to 1897 the average length of haul per ton of traffic carried at “exception rates” actually fell from 73 miles to 70; while during the same time the average length of haul of the “special tariff III” traffic remained stationary at 73 miles. It is true that a change in rates made in 1897 subsequently raised the average haul for the former class of traffic from 70 miles in 1898 to 79 miles in 1889. But much of that increase, in respect to development of total long-distance traffic, was an apparent increase only, since it was effected by transferring to the exception-rate class a large part of the specially long-distance portion of the traffic already existing in the “special tariff III” class *

* *Die Verwaltung der Oeffentlichen Arbeiten in Preussen, 1890 bis 1900*, by the Minister of Public Works.

EXCEPTION-RATE TRAFFIC

	1889	1896	1899
Average haul per ton, in miles	73	70	79
Proportion borne by this traffic to the total traffic, per cent	47	45	63
Receipts per ton-mile, in cents	0.996	0.941	0.893

SPECIAL TARIFF III TRAFFIC

	1889	1896	1899
Average haul per ton, in miles	73	73	56
Proportion borne by this traffic to the total traffic, per cent	31	32	17
Receipts per ton-mile, in cents	1.014	1.021	1.035

— coal and many other raw materials. The average haul of the “special tariff III” class of freight fell from 75 miles in 1896 to 56 miles in 1899.

Let us now pass from classification of rail traffic to distribution of total traffic between the railways and the waterways.

Upon the Rhine the freight rates are fixed by vessels with a capacity of 600 tons.* These rates the Prussian railways can and do meet without difficulty, whenever the Government allows the Railway Department to charge on the basis of what the traffic will bear. For example, in order that German coal may meet the competition of English coal, the Government allows the Department to make a series of special rates to Dutch ports on daily, weekly,

COKE AND COAL TRAFFIC,
INCLUDED, SINCE 1899, IN THE EXCEPTION-RATE TRAFFIC

	1889	1896	1899
Average haul per ton, in miles	—	69	74
Proportion borne by this traffic to the total traffic, per cent.	—	43	44
Receipts per ton-mile, in cents	—	0.958	0.865

ALL TRAFFIC

	1889	1896	1899
Average haul per ton, in miles	76	72	74
Receipts per ton-mile, in cents	1.339	1.325	1.253

* Sympher : *Die Wirthschaftliche Bedeutung*, etc., and *Vierteljahreshefte zur Statistik des Deutschen Reichs*, 1900, Heft 2.

bi-weekly and tri-weekly shipments in train-load lots of 200 to 300 tons. As a result, the railways carry each year to Dortrecht, Amsterdam and Rotterdam about 2,500,000 tons of coal, whereas the Rhine vessels carry to these markets only 170,000 tons. The total traffic in coal carried down the Rhine, amounting to about 1,300,000 tons a year as compared with 4,500,000 tons sent by rail, is confined almost entirely to coal destined to points in Holland which cannot be reached by railway; and it is carried in vessels of a capacity of only 100 to 250 tons.*

But though the Prussian railways can, when they are permitted, compete successfully with the Rhine vessels, they do not do so as a rule. Thus, in 1900, there were carried by way of the Rhine to Ruhrort, Duisburg and Hochfeld 2,125,000 tons of Spanish and Swedish iron ores, of which 1,329,000 tons were reshipped by rail to the smelters in the Ruhr district, a distance of 20 to 30 miles. In the same year there were carried by all-rail route from the Dutch and Belgian ports to the Ruhr smelters only 466,000 tons of Spanish and Swedish ores. In 1900 the Ruhr district shipped by all-rail route to the Bavarian Palatinate, Wuerttemberg, Bavaria and

* *Statistik der Gueterbewegung auf Deutschen Eisenbahnen; Jahresbericht der Central-Commission fuer die Rheinschiffahrt, 1900; Zeitschrift fuer Binnenschiffahrt, 1901, Heft 5; and Zweiter Jahresbericht der Handelskammer zu Ruhrort fuer das Jahr 1899.*

Switzerland 957,000 tons of coal as against 3,800,000 tons shipped first by rail to the Rhine ports, then by way of the Rhine to Mayence and Mannheim, and then by rail to points in the above-named territory. Coal sent from the Ruhr to Berlin goes by rail to Hamburg at special rates (granted for the purpose of meeting the competition of English coal), and thence in vessels of 200-ton capacity by way of the Elbe and the Havel to Berlin. In 1899 about 150,000 tons took this combined rail and water route, and only 50,000 tons went by the direct all-rail route. The Hamburg-Berlin trade is a comparatively new development, the shipments by this roundabout route having averaged only 14,000 tons a year in the period 1889 to 1894.*

Finally, one may observe of the total trade of the Ruhr district, which in 1900 amounted to 52,652,000 tons, that not less than 25 per cent entered and left the district by way of the river Rhine.† The disproportionate share which the Rhine gets of the traffic of other particular districts within its sphere of influence is set forth in another place. It may be mentioned here that of the general trade between Germany and Holland 49 per cent of the exports

* Sympher: *Die Wasserwirthschaftliche Vorlage*; and *Haus der Abgeordneten, Aktenstueck, No. 202*, May 24, 1895

† *Statistik der Gueterbewegung auf Deutschen Eisenbahnen, nach Verkehrsbezirken geordnet*, 1900; and *Jahres-Bericht der Central-Commission fuer die Rhein-Schiffahrt*, 1900. Compare also Sympher: *Die Wirthschaftliche Bedeutung des Rhein-Elbe Kanals*.

and 82 per cent of the imports go by water.* The railways are especially handicapped in competing for the carriage of imported commodities, because the Government holds that they should not neutralize the protective duties.

The distribution between the railways and the Elbe of the traffic between Hamburg and what is known as the Upper-Elbe territory affords another example of the perverting influence of the existing scheme of railway charges. The territory here referred to includes the region lying along the Elbe to the Bohemian frontier, the region along the Havel and the Spree to Berlin, and the region along the Oder to Breslau in Silesia. These points are reached by vessels which carry an average load varying, on different parts of the system, from 200 to 450 tons. The railway that serves all this territory is known as the Berlin-Hamburg railway, and under the *régime* of private railways the value of the freight car-

*The Elbe conquers
the Railway*

* P. Stubmann: *Holland und sein Deutsches Hinterland in ihrem gegenseitigen Waarenverkehr.*

EXPORTS TO HOLLAND			IMPORTS FROM HOLLAND	
	By River	By Rail	By River	By Rail
	%	%	%	%
1873 . . .	69	20	55	43
1878 . . .	59	34	70	27
1883 . . .	51	44	71	26
1888 . . .	47	47	71	25
1893 . . .	45	51	73	23
1898 . . .	49	46	82	13

ried by it vastly exceeded the value of the freight carried by the Elbe. Within a few years after the nationalization of the railways and the curtailment of special rates the situation had been reversed.*

* *Tabellarische Uebersichten des Hamburgischen Handels zusammengestellt von dem Handelsstatistischen Bureau*, current issues.

CARRIED INTO HAMBURG FROM THE UPPER-ELBE TERRITORY (ooo,ooo omitted)				
	By RIVER (Annual Average)		By RAIL (Annual Average)	
	Weight in Tons	Value in Marks	Weight in Tons	Value in Marks
1851-60	0.10	32.2	0.06	152.8
1861-70	0.16	55.4	0.10	232.2
1871-80	0.24	91.6	0.14	304.5
1881-90	0.64	276.4	0.14	315.4
1891-95	0.87	377.1	0.19	401.4
1896-1900	1.16	439.9	0.22	429.1
1896	1.01	447.7	0.20	406.3
1900	1.30	485.8	0.26	508.9

SENT FROM HAMBURG INTO THE UPPER-ELBE TERRITORY				
	Weight in Tons	Value in Marks	Weight in Tons	Value in Marks
1861-70	0.17	—	0.09	—
1871-80	0.25	—	0.16	—
1881-90	0.61	—	0.13	—
1891-95	1.01	470.8	0.20	329.5
1896-1900	1.71	640.3	0.23	363.8
1899	1.80	690.2	0.22	362.7
1900	1.77	705.5	0.29	389.1

Compare also: *Zeitung des Vereins Deutscher Eisenbahnverwaltungen*, July 20, 1898; and *Zeitschrift fuer Binnenschifffahrt*, 1898, Hefte 8, 11 and 13.

For example, in the period from 1891 to 1895 the annual value of the river traffic was 848,000,000 marks, while that of the railway traffic was 731,000,000. The traffic in food-stuffs, fuel, building materials, raw materials and articles partially manufactured now goes almost entirely by water. More than 25 per cent according to value, even of such high-class freight as articles described as "Kunst und Industrieerzeugnisse," goes by water. It is only in the carriage of the highest-class freight of all, "articles of fashion," that the railway has the monopoly of the business of transportation.*

A change similar to the one just described occurred in the distribution of the through freight traffic between Hamburg and Austria. In the seventies the average annual number of Elbe vessels arriving at

* *Loco citato.*

	CARRIED INTO HAMBURG FROM THE UPPER-ELBE TERRITORY		CARRIED INTO THE UPPER- ELBE TERRITORY FROM HAMBURG	
	(In millions of marks, in 1900)		(In millions of marks, in 1900)	
	By Rail	By River	By Rail	By River
Food-stuffs	54.5	303.5	77.3	212.5
Fuel and building materials	2.4	13.2	2.0	18.6
Raw materials and articles partially manufactured .	67.6	104.0	215.1	438.8
Manufactures and articles of fashion	161.6	5.0	32.8	5.6
"Kunst und Industrieerzeugnisse"	199.7	83.2	61.9	30.0

Hamburg from Laube-Tetschen, in the Austrian province of Bohemia, was 176. By 1882 the number had become 567. Upon the nationalization of the German railways, the Austrian Northwest Railway Company founded the Austrian Northwest Steamship Company, to navigate the Elbe between Laube-Tetschen and Hamburg. In a few years the great bulk of the traffic between Austria and Hamburg *via* Bohemia had gone to the Elbe.* In 1901 the Austrian Northwest Steamship Company was operating nine express freight steamers which made no stop between Hamburg and Laube-Tetschen. In addition, it had in commission 29 steamers and 500 barges for the carriage of ordinary through freight and local freight.

The territory lying between Berlin and Stettin, on the Baltic Sea, is served by a railway which is 85 miles long and a waterway which is 120 miles long. The latter consists of the Oder and the Finow canal.

The maximum capacity of the vessels that can use

* *Tabellarische Uebersichten des Hamburgischen Handels im Jahre 1900, zusammengestellt von dem handelsstatistischen Bureau; and Statistik der Gueterbewegung auf Deutschen Eisenbahnen, 1900.*

TONS OF FREIGHT EXCHANGED BETWEEN HAMBURG AND
AUSTRIA-HUNGARY IN 1900

	By RIVER	By RAIL
Up stream	701.900	70.600
Down stream	333.700	91.800

the canal is only 170 tons. The canal, nevertheless, has a traffic density three times the average traffic density of the railways of all Germany, and pays interest on 10,000,000 marks, which is five times its capital cost. The transportation charges on the waterway are but one-half as high as the charges on the competing railway. The traffic of the railway, therefore, is not considerable, and is limited to certain classes of freight in the transportation of which the saving of time is of great importance. In 1900, for example, the railway carried into Berlin only 191,000 tons of freight, and carried out only 86,000 tons. The canal, on the other hand, brought to Berlin more than 1,000,000 tons of freight.*

Stettin is the only Prussian port of importance. It has of late been losing business to Hamburg,† and

* V. Kurs in *Jahrbuecher fuer Nationaloekonomie*, November, 1901.

† *Stettins Handel, Industrie und Schiffahrt im Jahre 1897*. (Chamber of Commerce Report.)

SUGAR, IN TONS, SHIPPED BY RIVER FROM BRESLAU TO :—

	1888	1897
Hamburg	7,800	58,700
Stettin	28,600	28,400

TOTAL FREIGHT, IN TONS, SENT BY RIVER FROM BRESLAU TO :—

	1889	1897
Hamburg	20,600	77,000
Berlin	150,800	497,000
Stettin	127,000	134,000

this fact causes the Prussian Government much disquietude. The Government does not deem itself at liberty, however, to remedy the evil by giving Stettin lower railway rates, which would offset the advantage accruing to Hamburg from recent improvements in the waterways between Breslau and Berlin and Hamburg. Such a ready solution of the problem is not possible; for, while the Prussian Government and the German people generally believe it a patriotic act to cut railway rates against foreign cities, such as Rotterdam, they would not approve any departure from their uniform system of rates for the purpose of strengthening one German city as against another. But what may not be done through the agency of the railways may be attempted through another agency. The Prussian Government proposes to build between Berlin and Stettin a new waterway, at a cost of 41,000,000 marks, which shall carry vessels of a capacity of 650 tons. It is believed that the transportation charges on the new waterway will average 0.381 cent per ton-mile, including canal tolls and port charges.*

In 1890 Upper Silesia exchanged by means of the State railways and the river Oder 2,092,000 tons of freight with Berlin, the Province of Brandenburg and Hamburg. In the following year the Oder-

* *Zeitschrift fuer Binnenschifffahrt*, 1901, Hefte 2 and 6, and supplements to Hefte 4 and 5; *Zeitung des Vereins Deutscher Eisenbahnverwaltungen*, February 20, 1901; and *Berichte ueber Stettins Handel, Industrie und Schifffahrt*, current issues.

Spree canal was opened, and the volume of traffic exchanged between the two regions rose to 2,662,000 tons. That increase was due to the fact that the water traffic rose from 243,000 tons to 871,000 tons, a record which was further increased to 1,256,000 tons in 1896. In 1897 the Oder was deepened and improved, so as to carry vessels with a capacity of 450 tons, and the water-borne traffic thereupon rose to 1,798,000 tons in 1899. Meanwhile, the traffic exchanged by rail had actually fallen from 1,849,000 tons in 1890 to 1,746,000 tons in 1899.*

The foregoing review has shown that in the territories drained by the Rhine, the Elbe and the Oder — the three great rivers of Germany — the waterways are gaining constantly and rapidly upon the

* Baurat Sympher: *Zeitschrift fuer Binnenschifffahrt*, 1900, Hefte 18 and 22.

TRAFFIC EXCHANGED BY RAIL AND BY WATER BETWEEN UPPER SILESIA, ON THE ONE HAND, AND BERLIN, THE PROVINCE OF BRANDENBURG AND HAMBURG, ON THE OTHER HAND, IN TONS

TOTAL TRAFFIC		COAL		OTHER FREIGHT		GRAND TOTAL	
	Rail	Water	Rail	Water	Rail	Water	Rail and Water
1883	1,186,000	198,000	1,072,000	37,000	114,000	235,000	1,421,000
1890	1,849,000	138,000	1,647,000	105,000	202,000	243,000	2,092,000
1891	1,791,000	408,000	1,563,000	463,000	228,000	871,000	2,662,000
1896	1,382,000	531,000	1,178,000	725,000	209,000	1,256,000	2,638,000
1897	1,470,000	642,000	1,263,000	835,000	207,000	1,477,000	2,947,000
1899	1,746,000	814,000	1,482,000	984,000	264,000	1,798,000	3,544,000

railways in the carriage of all bulky and long-distance freight, except in those comparatively rare cases where the Government is willing to depart from its hard and fast scheme of rates. It would be difficult to find a more striking example of long-continued impediment to trade and industry occasioned by excessive railway charges than in the commerce between Hamburg, Brandenburg, Berlin and Upper Silesia. When the pressure was removed, now at one point, now at another, in the manner indicated, the traffic, as we have just seen, mounted by leaps and bounds. And this is not all. The facts show that the rigid scheme of rates, devised and maintained to prevent discrimination, results precisely in discrimination to a high degree in favor of districts with waterways, as against those which do not possess this means of relief.

Turning now to certain more general aspects of the subject of the sharing of traffic between waterways and railways, and its effect upon industry, we find that since 1880 the rivers of Germany, and to a less extent the canals, have constantly grown in importance as factors in the development of trade. In the period from 1875 to 1900 the length of the waterways, in proportion to the combined length of waterways and railways, fell from 27 per cent to 17 per cent; but nevertheless the proportion of the water traffic to the total of water and rail traffic rose

*Waterways gain
upon the Rail-
ways*

from 21 per cent to 24 per cent.* This change is reflected in the figures for the volume of traffic upon the waterways, which rose from 290,000 ton-miles per mile of waterway to 1,150,000 tons; while the density of traffic upon the railways increased only from 410,000 to 740,000. It is generally admitted in Germany that this increase of the water traffic was effected in part absolutely at the expense of the railway traffic;† and that this must actually have been the case can readily be understood when one considers the fact that, whereas the average receipts per

* Sympher: *Der Verkehr auf Deutschen Wasserstrassen in den Jahren 1875 und 1885*; *Die Zunahme der Binnenschifffahrt in Deutschland von 1875-95*; and *Centralblatt der Bauverwaltung*, May 16, 1900.

	1875	1885	1895 *	1898	1900
Proportion borne by the waterways to the total length of waterways and railways	27 %	21 %	18 %	17 %	17 %
Proportion borne by the traffic on the waterways to the combined traffic on the waterways and the railways . .	21 %	22 %	22 %	25 %	24 %
Ton-miles of freight carried per mile of waterway or railway: —					
Waterways .	290,000	480,000	750,000	1,000,070	1,150,000
Railways . .	410,000	450,000	590,000	680,000	740,000

† *Archiv fuer Eisenbahnwesen*, 1887; Ober Regierrungs-Rat Todt, and Lehmann; E. Heubach: *Die Verkehrsentwicklung auf den Wasserstrassen und Eisenbahnen des Elbe-Odergebietes*; and *Zeitung des Vereins Deutscher Eisenbahnverwaltungen*, November 26, 1898.

* Low water in the rivers made this a bad year for transportation by water

ton-mile declined 15 per cent upon the railways, during the period in contemplation, they fell about 50 per cent upon the waterways. At present the average receipts per ton-mile on the total traffic upon the waterways are about 0.346 cent. Upon important groups of traffic they have at times been even as low as 0.069 cent and 0.087 cent. For example, in 1898 the receipts per ton-mile on Spanish and Swedish iron ores carried on the Rhine from Rotterdam to Ruhrort fluctuated between 0.069 cent and 0.374 cent. During the same year the Rhine rates on coal from Ruhrort to Mannheim fluctuated between 0.087 cent and 0.311 cent per ton-mile. The extent to which in general the rates of the Rhine railways are cut under by the Rhine river-craft is indicated by the fact that from 1887 to 1891 the boats increased the proportion of high class traffic to their total traffic from 11.17 per cent to 13.06 per cent; whereas the corresponding figures for the trains are 10.33 per cent and 11.04 per cent.

Upon the Rhine the transportation charges, as already stated, are fixed by vessels with a capacity of 600 tons, the largest vessels rising to 2000 tons. The length of carriage per ton of the freight varies from 125 miles to 350 miles, and the average is about 200 miles. In the period from 1885 to 1898 the average receipts per ton-mile were 0.268 cent for iron ores, 0.208 cent for coal and 0.381 cent for grain. It will be remembered that the railway

export rates on grain begin with 1.038 cents per ton-mile for the first 125 miles and fall to 0.495 cent for distances beyond 250 miles exclusive of terminal charges. The ordinary rates per ton-mile on coal and iron are 0.761 cent. The lowest "exception rate" on coal is 0.433 cent, the lowest one on iron ores is 0.519 cent, and the lowest "exception rate" on iron and steel is 0.415 cent. The lowest rate of any sort in force on the railways of Germany is 0.346 cent per ton-mile for distances beyond 218.5 miles. It applies to certain calcium salts used in the manufacture of artificial manures.

Upon the Elbe transportation charges are fixed by vessels with a capacity of 400 tons, and upon the Oder by vessels of 250 tons; but in the important traffic between Hamburg, Berlin and Breslau (in Silesia), using the small canals and rivers connecting the Elbe and the Oder, they are fixed by 200-ton vessels.* In the two years 1895 and 1899 the average receipts per ton-mile in the long-distance traffic carried in barge loads upon the Elbe and Oder varied from 0.176 cent to 0.657 cent.†

Upon the rivers of Germany, in general, the average receipts per ton-mile on all traffic fluctuate between 0.176 cent and 0.519 cent; and upon the canals they range from 0.346 cent to 0.692 cent. On the other hand, the average receipts per ton-mile for the traffic carried by the railways at "exception

* Sympher: *Die Wirtschaftliche Bedeutung*, etc.

† *Zeitschrift fuer Binnenschifffahrt*, 1901, Hefte 2, 3 and 5.

rates" in 1899 were 0.893 cent. During the 17 years 1882 to 1899 these rates had fallen just 10 per cent, though for 8 years of this period, 1884 to 1892, they were absolutely stationary at 0.938.* Throughout this period of 17 years the "exception-rate" traffic constituted no less than 50 to 60 per cent of the total traffic. Of the remainder a large part, or 30 per cent of the total, was carried as "special tariff III" class, the receipts from which remained stationary from 1887 to 1899 at 1.014 cents per ton-mile.

It thus appears that, so far as the development of German manufacturing and mining industries for practically two decades depended upon the growth of long-distance traffic, and upon the traffic in bulky articles which can bear only low transportation charges, the State railways aided comparatively little. Indeed, so far as the development of industrial Germany depends upon long-distance traffic in comparatively low-value, bulky articles, or upon traffic in articles of any kind that must be sold on a narrow margin of profit in the international market, her salvation was, and still is, the waterways. The truth of this generalization is not brought in question by the fact that, in respect to export sugar in 1901, the charge on the railways was reduced from 1.557 cents

* E. Heubach: *Die Verkehrsentwicklung auf den Wasserstrassen und Eisenbahnen des Elbe-Odergebietes*; and annual issues of *Archiv fuer Eisenbahnwesen*, or *Die Verwaltung der Oeffentlichen Arbeiten in Preussen, 1890 bis 1900*.

per ton-mile to 0.900 cent for the first 62.5 miles of the haul, and 0.711 cent for that part of the haul in excess of 62.5 miles.* Even that reduction does not meet the water rates on sugar, which vary from 0.280 cent to 0.657 cent. The 6,700,000,000 ton-miles of traffic carried by the waterways of Germany in 1899, at an average charge of 0.346 cent per ton-mile, paid 275,000,000 marks less than it would have paid had it been carried by the railways at the average price received from the "exception-rate" traffic. That saving of 275,000,000 marks is one-third of the total receipts of the railways from freight traffic. But it would be a palpable blunder to measure in these terms the real service rendered by the waterways ; for the important thing respecting the water-borne traffic is that this traffic never could have come into existence had it been obliged to pay 0.893 cent per ton-mile or more. This in turn means, without exaggeration, that were it not for the waterways modern Germany could not have come into existence — unless, indeed, the Railway Department had long since abandoned entirely its effort to adhere to an inflexible scheme of rates, and had gone over without reserve to the practice of charging what the traffic will bear.

Ever since the nationalization of the railways the river-craft have constantly cut under the inflexible

* *Zeitschrift fuer Binnenschiffahrt*, 1901, Hefte 2, 3 and 5.

railway rates to such an extent that the back-handed discriminations of the German transportation system as a whole in favor of cities and districts with waterways, as against those without them, have equalled, and even in many cases exceeded, any positive local discrimination ever made by the private railways. Looking at the other side of the matter, one will search in vain in the history of private railways in Germany (or in the United States) for an instance of long-continued adverse discrimination, handicapping important traffic or traffic which could have been made important, that will begin to equal the discrimination made, for example, against that part of the German beet-sugar crop which is sent to market over the State-owned railways of Prussia. In the years 1880 to 1901, when the railway charges on sugar were from three to four times as high as the waterway charges, vast areas of Germany must have been heavily handicapped in the production of beet sugar. Again, in respect to grain, it is well known that like differences in transportation charges, which still exist, have made farming lands that have access to railways only less valuable than those that have access to waterways.* On the other hand, it is clear that the cheap transportation upon the Elbe has had a large share in the extraordinary progress

* Von der Goltz: *Vorlesungen ueber Agrarwesen und Agrarpolitik*, p. 244.

made by the Province of Saxony and the Duchies of Anhalt and Brunswick, not only in the manufacture of beet sugar, but also in the distillation of spirits from grain and potatoes, the manufacture of oil-seed cake and the manufacture of artificial manures from calcium salts.*

The failure of the railways to meet the rates made by the river-craft results in still another particular form of local discrimination, and that is in respect to trade proper, as contrasted with manufactures and farming. Bremen is as near the centre of the beet-sugar industry as Hamburg, but it has practically no export trade in sugar. In the two years 1898 and 1899 there were carried into Hamburg by way of the Elbe 1,843,000 tons of crude and refined sugar; by way of the railways, 48,000 tons. In the same years there were carried into Bremen by way of the Weser (a much smaller river than the Elbe) 45,000 tons of sugar; by way of the railways, 10,000 tons.†

Down to 1877 Bremen had the monopoly of supplying Germany with petroleum imported from the United States. In that year the vessels upon the Rhine and the Elbe began to carry petroleum, and by 1885 Bremen had lost to Hamburg its trade in petroleum with Austria, Saxony, Berlin and the whole

*Bremen loses the
Petroleum Trade*

* *Zeitschrift fuer Binnenschifffahrt*, 1901, supplement to Heft 4.

† *Statistik des Deutschen Reichs*, Neue Folge, Baende 125 and 131; *Die Binnenschifffahrt im Jahre 1898 und im Jahre 1899*; and *Statistik der Gueterbewegung auf Deutschen Eisenbahnen*, 1899.

region reached from Hamburg by way of the Elbe.* The leading Bremen importers, Messrs. Riedemann and Schuette, tried to save their trade with the territory lying along the Rhine by establishing a branch at Rotterdam. The Prussian Government, unwilling to see the city of Bremen lose trade to a foreign city, thereupon gave Messrs. Riedemann and Schuette cut rates from Bremen to the territory along the Rhine and to southern Germany. This importing house had already initiated the practice of carrying oil from America in tank-vessels; and by means of the economies thus effected, together with the special rates given by the railway on oil shipped in tank-cars, it was enabled to retain a fair hold upon the Rhine trade. Indeed, by the use of tank-cars, Messrs. Riedemann and Schuette even regained some of the trade with the Elbe territory. In 1890, however, the German representative of the Standard Oil Company put a fleet of 600-ton tank-vessels upon the Rhine, Elbe and Oder, and took the traffic in petroleum away from the railways en-

* R. Schneider: *Der Petroleumhandel*.

PETROLEUM SHIPPED BY RAIL FROM BREMEN TO:—

	1877	1885
	Tons	Tons
Austria	45,420	3429
Saxony	13,000	957

tirely.* To-day that part of Germany lying along the Elbe and the Oder is supplied with petroleum by water from Hamburg; and that part along the Rhine is supplied from the Rhine ports lying between Rotterdam and Mannheim, the latter point being the head of navigation for sizable vessels. All along the waterways of Germany are maintained supply points, from which oil is distributed to the cities and districts that have railways only. Under this practice, the Weser not being an effective waterway, Bremen has been reduced to a mere local market for petroleum.†

Similar discriminations exist against Bremen in the general trade with Austria-Hungary, as well as in the import trade in petroleum. In 1900, for

* R. Schneider: *Der Petroleumhandel*. In 1895 the charges for the carriage of 100 kilogrammes of petroleum were:—

	By RAIL	By RIVER
	Marks	Marks
Hamburg to Magdeburg	1.63	0.40
Hamburg to Dresden	2.84	0.68
Hamburg to Berlin	1.79	0.38

† *Eisenbahntarife und Wasserfrachten*; and *Die Binnenschifffahrt im Jahre, 1899*.

PETROLEUM IMPORTED INTO:—

	1877	1899
	Tons	Tons
Bremen	213,000	86,000
Hamburg	46,000	269,000
Mannheim	13,000	124,000

example, the traffic exchanged by rail between Bremen and Austria-Hungary was only 64,000 tons. In that same year the traffic exchanged by way of the Elbe between Hamburg and Austria-Hungary was 1,036,000 tons. Cheap water transportation enabled Hamburg to make larger and more widely ramified trade connections with Austria-Hungary than Bremen was able to make. Therefore, one is not surprised to learn that even the freight exchanged by rail between Hamburg and Austria-Hungary was nearly three times as large as that exchanged by rail between Bremen and Austria-Hungary.* A further indication of the extent to which Bremen is handicapped by the absence of an efficient waterway to connect it with the interior of Germany is found in the fact that Bremen ships, in vessels, by way of Hamburg, Emden and other German ports, 18 per cent of the food-stuffs, 21 per cent of the raw materials and 22 per cent of the manufactured articles which it sells into the interior of Germany.†

The three or four fold greater charges for transportation by rail than for transportation by water has also had the effect of concentrating along the waterways the business of buying and selling grain, as well as

*Mannheim be-
comes a Great
Trade Centre*

* *Statistik der Gueterbewegung*, etc.; and *Tabellarische Uebersicht des Hamburgischen Handels*, etc.

† *Jahrbuch fuer Bremische Statistik*, 1900.

the manufacture of flour.* It has made Mannheim the most important wheat market of continental Europe. In this trade Mannheim now enjoys wholly exceptional advantages, for she has virtually become a salt-water port. A large part of the freight imported by way of Rotterdam is transferred from the ocean-going vessels directly to the Rhine vessels, and pays neither commission charges nor warehouse charges in Rotterdam.†

In each of the three years, 1898 to 1900, Mannheim took from the Ruhr district by way of the Rhine

* P. Mohr: *Die Entwicklung des Grossbetriebes in der Getreide Muellerei Deutschlands*; and *Zeitung des Vereins Deutscher Eisenbahnverwaltungen*, July 30, 1898. *Verhandlungen des Landeseisenbahnrats*, 1899, No. 15.

GRAIN RECEIVED AT THE SO-CALLED GIANT MILLS

	BY RAIL	BY WATER	BY RAIL AND WATER	BY WAGON
1895-97	40.4 %	32.1 %	14 %	13.5 %

FLOUR AND MILL PRODUCTS SHIPPED FROM MILLS

1895-97	59.8 %	12.8 %	1.9 %	25.5 %
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FLOUR AND MILL PRODUCTS SHIPPED IN 1897

	PER CENT
Not to exceed 62.5 miles	63.3
Between 62.5 and 125 miles	24.0
Between 125 and 187.5 miles	6.5
Between 187.5 and 250 miles	3.0
Upward of 250 miles	3.2

† Landgraf: *Die Verkehrspolitische Mission Mannheims*.

an average of 2,400,000 tons of coal;* by way of the railways it took less than 25,000 tons. In the same period it obtained less than 100,000 tons a year from the Saar district, though the latter is less than half as far from Mannheim as is the Ruhr district.† The report of the Mannheim Chamber of Commerce for 1895 explained the anomaly: the State railways from the Saar district maintained a hard and fast rate on coal, whereas the Rhine vessels from the Ruhr district adjusted their rates to the exigencies of the market. This made the margin of profit so much larger on the Ruhr coal that it was not worth while for the Mannheim merchants to handle Saar coal.‡

In 1900 the total receipts of freight at Mannheim (mainly from points below, up the Rhine) were 5,953,000 tons by water and 1,460,000 tons by rail.§

* *Die Binnen-Schiffahrt*, current issues.

† *Statistik der Gueterbewegung*, etc.

‡ E. Heubach in *Eisenbahntarife und Wasserfrachten*; and *Zeitung des Vereins Deutscher Eisenbahnverwaltungen*, October 21, 1899; also Sympher: *Die Wirthschaftliche Bedeutung*, etc.

§ J. Landgraf: *Der Rhein in seiner technischen und wirthschaftlichen besonders auch verkehrstarifarischen Bedeutung*; *Statistik der Gueterbewegung auf Deutschen Eisenbahnen*, etc., 1900; and *Jahres-Bericht der Central-Commission fuer die Rhein-Schiffahrt*, 1900.

	INTO MANNHEIM		OUT OF MANNHEIM	
	By River	By Rail	By River	By Rail
	Tons	Tons	Tons	Tons
1884	1,454,000	662,000	312,000	1,397,000
1890	2,562,000	910,000	561,000	2,263,000
1900	5,953,000	1,460,000	990,000	3,812,000

In 1900 the traffic into and out of St. Louis, which is at the head of navigation on the Mississippi, so far as sizable vessels are concerned, was 24,600,000 tons by rail and 700,000 tons by river.

In the same year there were shipped (to points farther in the interior) by water, 990,000 tons; by rail, 3,812,000 tons. Mannheim, by reason of its peculiar situation, is, of course, an extreme example of local discrimination due to the failure of the railways to meet the transportation charges of the waterways. But that does not make the foregoing figures any less instructive, as illustrations of local discriminations in respect to trade centres resulting from this cause.

In the course of the proceedings of the committee of the Diet appointed to report on the Government canal bill of 1901, Mr. Sympher, as the representative of the Government, spoke of the "well-known" fact that such manufacturing enterprises as were not established in the immediate vicinity of coal or iron mines were forced to seek location upon the waterways. The waterways enabled the manufacturers to obtain their raw materials at prices not materially higher than those current in the coal and iron districts. The building of canals, Mr. Sympher argued, would decentralize industry and would check the further congestion of population in the present industrial centres.* In 1879 the Govern-

Government Control concentrates Trade and Population

* *Zeitschrift fuer Binnenschifffahrt*, 1901, Heft 10. Compare also: *Centralblatt der Bauverwaltung*, May 18, 1901. Professor Eheberg, of Erlangen, in Bavaria, stated that the execution of the Prussian canal schemes would prove disadvantageous to Bavaria. The industries that would locate along the proposed canals would have such advantages that the competing Bavarian industries would have to leave Bavaria and seek location upon the canals.

ment of Prussia had asked permission of the Diet to buy the railways in order that, among other things, it might decentralize industry and check the growth of large cities; now, in 1901, it asked permission to parallel the main railway lines by canals in order to accomplish the same object.

The Prussian Government has been fairly successful in limiting direct personal discrimination upon the railways, as contrasted with local discrimination. Indeed, in the American sense of the term there is no personal discrimination — that is, discrimination effected by means of secret rates; but there is considerable difference between the charges on small shipments, on 5-ton shipments and on 10-ton or car-load lots.* These differences are of such importance that small shippers frequently give their freight to “forwarding agents,” with the understanding that the latter may delay shipment until they shall have collected a 5-ton or 10-ton lot. The forwarding agents share with the shippers the difference between the parcels rate and the car-load rate, retaining for themselves one-half to two-thirds of the difference. Down to 1897 they acted as middlemen for about 20 per cent of the parcel shipments; but since then the percentage has fallen to 11 or 12, the railway rates on parcels having been lowered.†

* *Archiv fuer Eisenbahnen*, 1900, Heft 2. Compare also: *The Railroad Gazette*, February 15, 1899.

† *Zeitung des Vereins Deutscher Eisenbahnverwaltungen*, June 4 and 15 and July 2, 6 and 27, 1898; and *Statistik der Gueterbewegung*, etc.

In 1899 not less than 90.7 per cent of the freight carried by the railways was delivered to them in 10-ton, or car-load lots. Car-load traffic is obviously handled much more economically than less than car-load traffic, and thus the practice of granting the favor of a lower rate per car-load to the wholesale shipper is of great value to the Railway Department. As the carrying capacity of the cars is increased, the weight of the car-load consignment will have to be raised proportionately, or the capacity of the enlarged car will not be fully utilized. The failure to raise the minimum quantity of freight constituting a car-load lot, when the 15-ton cars were introduced, was mainly responsible for the fact that the proportion of the carrying capacity of cars utilized fell from 49 per cent in 1890 to 45.4 per cent in 1899.* On the other hand, to raise the car-load lot from 10 tons (where it stands at present) to 20 or 30, would materially increase the discrimination between the small shipper and the large shipper. Unwillingness to make so great a discrimination is probably one reason why the Government is loath to introduce modern cars of greater capacity.†

* *Zeitung des Vereins Deutscher Eisenbahnverwaltungen*, February 20, 1901.

† The waterways have had a distinct advantage in respect to flexibility in adjusting rates with regard to the specific economies of the transportation business. Thus, in the 20 years ending with 1897, the average capacity of the vessels on the waterways was increased from 80 to 160 tons, and at the same time a considerable improvement was effected in the utilization of space or carrying capacity. This is shown conclusively by the

Just as the boldest innovations of the Railway Department, in modification of the hard and fast scheme of rates in general, are made, as we have seen, in cases where pressure from the outside world compels action, so in this matter of discrimination between the large and small shippers. The Railway Department has gone far in such discrimination in a number of instances of extreme competition with English and French articles of commerce. In the general coal traffic, for example, there is a tendency to require a minimum consignment of 45 tons. In the particular coal traffic to the foreign ports in Belgium and Holland and to the domestic ports (and considerable industrial centres) of Bremen and Hamburg, which are common markets for English, French and German coal, progressive rebates are given for the shipment of a specified number of train-loads per week, each train-load to consist of from 200 to 300 tons.* In other cases in the coal trade, the special

fact that, while the aggregate capacity of the river and canal fleet was increased, through more boats and larger boats, by 143 per cent, the total traffic carried was increased by 159 per cent. *Zeitschrift fuer Binnen-schiffahrt*, 1900, Heft 8.

* *Verhandlungen des Landeseisenbahnrats*, 1900, No. 4.

COAL SHIPPED FROM RUHR DISTRICT TO ROTTERDAM IN 1900

	TONS	REBATE PER TON IN PFENNIGE
In car-load lots	406,000	nil
In five car-load lots	350,000	19
In train-load lots	1,875,000	40

In the traffic to Belgian ports the rebates for train-load shipments average 15 cents per ton.

rates are given in consideration of the shipment of a specified quantity per year, as in the traffic from Silesia to Dresden and to the Baltic seacoast region.* In still other cases, special rates are given on condition of a certain increase of the traffic.† In all these cases the object of the Government is to enable the German coal to meet the competition of foreign coal.

In connection with the matter of personal discrimination, there is still another feature of the situation to be brought out. The Prussian scheme of *Water Traffic* railway charges, as we have seen, *means Personal* operates to give a retroactive local *Discrimination* discrimination in favor of those parts of the country which have waterways. The same cause has the further effect of bringing about new forms of personal discrimination, superadded to the local discrimination. Not only do common carriers on the rivers and canals increase the size of their vessels and then, in order to run them full, favor large shippers more and more; but also in the regions served by waterways the larger producers of coal, iron, steel, sugar and other low-priced and bulky commodities frequently own and operate their freight vessels — which is, of course, a practice beyond

* *Verhandlungen des Landeseisenbahnrats*, 1900, No. 4. On condition that the aggregate annual shipments of coal from the Ruhr district to Paris shall be not less than 75,000 tons, the German State railways join the Belgian State railways and the French Railway du Nord in making a rebate of 14 cents per ton.

† British Blue Book, Commercial No. 2 (1898). *Bounties to Ships and Preferential Railway Rates.*

the means of small producers. For example, *Die Elbinger Dampfschiffrederei F. Schichau*, which employs between 5000 and 6000 men, keeps in commission two steamers which carry Russian lumber from Elbing on the Baltic to Cologne on the Rhine, and take back to Elbing iron and steel for use in its works.* Again, *Die Gesellschaft fuer Brauerei, Spiritus und Presshefenfabrikation*, at Karlsruhe in Baden, sends its own tank steamers and tank barges to the Baltic seaports for the raw spirits which it rectifies at Karlsruhe.†

One of the leading objects of Prussia's nationalization of the railways was, as stated in the last chapter, the desire to abolish or minimize railway discriminations. This should result, according to the Diet's understanding of cause and effect, in decentralizing trade and industry, as well as in putting large and small shippers on a footing of equality. To restate the matter, there was the immediate object of doing away with certain railway rate-making practices; and there was the ultimate object of attaining thereby certain social-economical results. The evidence now before us shows that Prussia has succeeded on the whole in the first, but has failed completely in the second.

* It was this firm that exhibited the steam-engine which took the first prize at the World's Fair at Chicago and which is now in use in the largest milling establishment at Minneapolis.

† *Zeitschrift fuer Binnenschifffahrt*, 1901, Heft 8; and *Zeitung des Vereins Deutscher Eisenbahnverwaltungen*, December 2, 1899; or *Jahres- und Verwaltungsbericht der Handelskammer fuer Duisburg*, 1900.

The making of railway rates is now directly and positively under the control of the Prussian Government, and therefore personal discrimination has been done away with, except in those forms where it is compelled by technical or other special conditions. Even more completely has local discrimination been done away with, so far as the railways themselves are concerned. A decaying city which the State railways serve — a city without natural or artificial waterways — has the consolation of knowing that it is no worse off than other cities similarly situated. But the making of the transportation situation as a whole in Prussia is not directly and positively under the control of the Government — or, at any rate, not so long as the waterways are not crippled by tolls, and the present scheme of high and inflexible railway charges is maintained. Up to the present time, as we have seen, there is not only failure to produce decentralization, but the very opposite condition has actually been intensified; and in addition, along with the growth of that traffic which is not managed by the Prussian Government, there goes a great increase of personal discrimination as well. The traffic on the waterways, it may be further observed, is precisely the traffic in which personal discrimination is most telling in effect; for it is the traffic arising from commercial transactions based on a narrow margin of profit. Upon this water-borne traffic the advantage of the large shipper over the small shipper

has been steadily increasing for 20 years, and is to-day greater than it ever was upon the German railways before they were nationalized. It will increase still further, as the canals are extended in length and deepened, and the rivers improved. The average capacity of the vessels on the rivers and canals is now only 20 tons less than the average train-load, and it is a matter of common remark that it is becoming constantly more difficult for the small producer or dealer to make his shipments by water sufficiently large to secure for himself the lowest rates.*

But, turning again to local discrimination, we find that, even directly and in connection with the rail traffic itself, the uniform, levelling scheme of government charges has resulted in furthering concentration of business and population, instead of promoting dispersion. As every practical railway man knows, rival commercial centres are dissimilar: they have dissimilar facilities for transacting business, and dissimilar powers for drawing and holding it; and therefore to treat them all alike in rates would mean the absorption by one of all the trade competed for. Thus, in the United States, Boston, Philadelphia, Baltimore and Newport News, in competition with the great trade magnet, New York, for the export grain trade, have been given a chance through the

* *Archiv fuer Eisenbahnen*, 1901, Heft 2; and Ulrich: *Staatseisenbahnen, Staatswasserstrassen und Deutsche Wirthschaftspolitik*.

well-known trunk line "differentials." In Germany, on the contrary, Stettin and Bremen have no chance as against Hamburg, either, for example, in the export trade in sugar or the import trade in petroleum. Hamburg grows apace, outstripping all her rivals — the very thing the Prussian Government, for various weighty reasons, desires to prevent. The Government may not grant differentials on its own railways to remedy this undesirable state of things (as private railways might and would), or at least it may not grant them readily. The only thing it may do is to try to provide with canals the cities which are being left behind; though this, in turn, as we shall see in a subsequent chapter, leads to fresh local inequalities and charges of favoritism. "Believe me," said Burke, "those who attempt to level never equalize. . . . The levellers only change and pervert the natural order of things."

CHAPTER III

RAILWAY REVENUE AND TECHNICAL EFFICIENCY

WHEN the Prussian Diet authorized the Government, in 1878-79, to begin the purchase of the private railways of Prussia, with the design of creating a complete State system, it was with the understanding that any surpluses earned by the Railway Department should not be used for defraying the current expenses of the State. Such surpluses were to be paid into a sinking fund, which was to serve the double purpose of a fund for the ultimate payment of the railway debt and of a reserve fund to be drawn upon in any year in which the railways might fail to earn the interest on the securities outstanding against them. During the course of the debate on the various bills submitted to the Diet, in that and subsequent years, the Government repeatedly assured the Diet that, beyond interest and reasonable sinking-fund payments, the railways would not be made a source of income; that the State would always manage the railways primarily in the interest of commerce and industry, and not in the interest of the budget. The forceful expression of a

Minister of the Crown was that the State railways were not to be managed like a brewery.*

These assurances were necessary, for the Diet was opposed to the Government having an independent source of revenue in the form of net railway earnings; and it was also unwilling that the Government should run the risk of disorganizing the public finances, by treating as current income an item subject to such sudden and violent fluctuations as railway profits.† Every one still had the liveliest recollection of the sudden drop in the net earnings of the railways of Germany from an average of 6.44 per cent during the prosperous years, 1868-72, to 4.47 per cent in the years of depression, 1875-79.‡ To make the assurances good, accordingly, the Government proposed, in December, 1880, the establishment of a sinking fund and a reserve fund; but, as the national budget proposals showed an estimated deficit of 30,000,000 marks for the fiscal year 1881-82, the Diet itself urged that it was inexpedient to begin upon these railway surplus funds at that time. In 1882, under substantially similar con-

* This ideal was held up to still existing private railways. In 1882 the Minister of Public Works, Herr von Maybach, in putting pressure upon the managers of certain private railways in Silesia, in order to obtain for the general public certain reductions in rates, reminded these managers that, in return for the charters granted, the railway companies had assumed duties to the public which had fully as much weight as had the claims of the stockholders. Joseph Ritter von Renauld: *Der Bergbau und die Huettenindustrie von Oberschlesien*, 1884-97, p. 63. Compare also: *Zeitung des Vereins Deutscher Eisenbahnverwaltungen*, August 24, 1898.

† *Finanz-Archiv*, 1885: Das Eisenbahngarantiegesetz.

‡ *Annalen des Deutschen Reichs*, 1883.

ditions of deficit in the national accounts, the Diet finally contented itself with enacting that the railway surpluses should be used in paying off the railway debt at the minimum annual rate of three-fourths of one per cent. The restrictive force of this enactment was neutralized, however, by the further provision that any part of the railway surpluses which should be used to defray any public expenditures that otherwise would have to be met by loans, should be regarded as having been virtually applied to the liquidation of the railway debt. That is, this proviso of the enactment made it legally possible for the Government to apply railway surpluses to current expenses of the State, on the plea that the alternative to such use would be the issue of loans to cover deficiencies in the current income. Thus was the door left open: several things led to crossing the threshold.

From 1860 to 1873 the landed aristocracy of Prussia speculated recklessly in agricultural lands, believing that wheat and the other grains were to have permanently high prices. The great landholding families bought all the land they could, frequently paying down only one-half to one-third of the purchase price, letting the balance stand on mortgage. Then came the crisis of 1873, with the hard times that followed; and to this, beginning in 1875, was added a series of years of disastrous harvests. By 1878 the

outlook had completely changed, with the conviction that the wheat of the Mississippi Valley was to be a permanent and formidable competitor of the wheat raised in Germany. Accordingly, in 1879, Bismarck brought the *régime* of free trade to an end, by carrying in the Imperial Reichstag a measure imposing on wheat a customs duty of 10 marks per ton. This step was taken partly from the desire to help the landed aristocracy, which had always been the institutional mainstay of the Crown, and partly from the wish to strengthen the peasant farmers, who constitute the great bulwark of voters against the rising tide of socialism. But in order to get the non-agrarian vote of Prussia to support the Imperial customs bill in the Reichstag, it was necessary to promise in the Prussian Diet certain abatements of taxes. In 1881 the Reichstag elections went adversely to the Government, much political capital having been made during the campaign from the rise in the necessities of life which followed the duties of 1879, imposed after the series of European crop failures of the preceding four years. It thus became necessary, in order to placate the non-agrarian element, to go even beyond the promises made in 1879; and Bismarck began to cast about for some source of revenue that should enable him to make important abatements of taxes and considerable augmentations of expenditures. His schemes for a state monopoly of the distilled spirits and to-

bacco industries failed; and, therefore, to meet the deficits when the time came, nothing remained but to turn the Railway Department into a revenue-raising machine.*

Down to the close of the financial year 1889-90 the proceeds of the direct and indirect taxes, supplemented by the proceeds of the State's agricultural lands, forests, coal mines and salt works, sufficed to meet all the expenses of the State, excepting, of course, the expenses on account of the national debt and the railways, which were taken care of by the railway earnings. But in 1890-91 the Prussian budget showed the effect of the extensive abatements of taxes and augmentations of expenditure of the preceding years; and there was no help for it but to draw heavily on the railway surpluses for the current expenses of the State. The reductions in taxes had been made in connection with the reform of local taxation and the imposition of imperial taxes, especially in connection with raising the protective duty on wheat to 30 marks per ton in 1884, and to 50 marks per ton two years later. The expenditure had been increased by legislation which improved the condition of the civil servants, and of the widows and children of deceased civil servants, as well as by legislation which entailed increased outlays upon

* Freiherr von Zedlitz und Neukirch: *Dreissig Jahre Preussischer Finanz- und Steuerpolitik*. Freiherr von Zedlitz is the parliamentary leader of the Free Conservative faction of the Conservative Party.

the people's schools, the technical high schools and the universities. In the end the budget was affected adversely to the extent of 150,000,000 marks a year; and the railway surpluses for the whole period closing with 1900-01 were drawn upon at the average annual rate of 89,000,000. At the present moment they are drawn upon at the rate of 180,000,000 a year, and there is no immediate prospect of reduction. The direct taxes yield about 160,000,000 marks, and the indirect taxes another 50,000,000. Were it not for the railway surpluses, Prussia would need either practically to double its taxation or to reduce expenditure by one-half.*

Dependence upon railway earnings being thus firmly established, contrary to all the fair promises made at the beginning, reductions of rates have to wait upon the convenience of those in charge of the budget, notwithstanding the fact that the Government may itself be fully convinced of the advisability of such reductions in the interest of the public. For example, in May, 1891, when the National Railway Council, acting upon resolutions of all the District Councils and supported by the Minister of Public Works, reported that public interest demanded that the rates on iron ores, coal and coke be reduced, the

*The Government
versus the People*

* *Annalen des Deutschen Reichs*, 1898 and 1900; Extracts from the Reports of the Minister of Finance to the King of Prussia; *Finanz-Archiv*, 1897 and 1900, R. von Kaufmann; and *Die Verwaltung der Oeffentlichen Arbeiten in Preussen, 1890 bis 1900*.

Government replied that the condition of the national finances forbade the granting of any reductions in rates that might cause a considerable temporary loss of revenue. The surplus in the national account had fallen from 102,000,000 in 1890 to 13,000,000 in 1891, and the year 1892 was expected to show a deficit of some 40,000,000. In vain the coal and iron interests made answer that the freight rates in question had been stationary since 1881; that in Germany the transportation charges constituted from 25 to 30 per cent of the cost of making pig iron, whereas in England they constituted only 10 per cent. In 1893 the Government admitted the necessity of the reductions asked for in 1891, but it granted a reduction on iron ores only, postponing action on the coal and coke rates until the national finances should again be in a satisfactory condition.* The years 1893 and 1894 ended with deficits of 25,000,000 and 30,000,000 respectively, and 1896 closed with a surplus of 60,000,000. Then, in 1897, the freight rates on coal and coke and numerous other articles were reduced.†

From 1881 to 1895 the net earnings of the railways averaged 5.35 per cent annually on the cost of the railways to the Government, a sum somewhat in excess of the original cost to the companies which had

* E. Heubach in *Eisenbahntarife und Wasserfrachten*.

† *Stahl und Eisen*, December, 1891; April 15 and December 15, 1892; March 15, 1896; and January 15, 1898.

sold to the State. In 1896 the net earnings rose to 6.75 per cent, and in the following four years they averaged 7.16 per cent. They have been sufficient since 1880, not only to pay the interest on the entire national debt (95 per cent of which is railway debt), and to pay off the debt itself at the rate of about one-half of one per cent a year, but also, as has just been shown, to contribute largely to the current expenses of the State.*

To make this favorable showing, however, the Government overreached itself. In the eighties and the early nineties it starved the maintenance of way and of rolling stock, and down to 1895 it erred in charging to capital account expenditures that should have been charged to operating expenses.†

In consequence of the fact that immediately upon the taking over of the railways by the State, the long-distance traffic and the traffic in bulky commodities of comparatively low value were deflected so largely to the waterways, the Railway Department did not feel the necessity of bringing the railways to modern standards of efficiency. The result has been that the railways, since the latter nineties, have been finding it increasingly difficult to handle the traffic

*The Inefficiency of
the Railways*

* O. Schwarz and G. Strutz: *Der Staatshaushalt und die Finanzen Preussens*, Vol. I, Bk. VII; *Die Eisenbahnverwaltung*. The authors are prominent officials in the Ministry of Finance.

† *Annalen des Deutschen Reichs*, 1898; and *Zeitschrift des Vereins fuer Binnenschifffahrt*, 1901, Heft 6.

that now comes to them as mere feeders to the waterways. That traffic is now so large, in places, that it can be handled only by a modern railway; on the other hand, a modern railway, employing cars of 30, 40 and 50 tons' capacity and hauling freight in train-loads rising to 3000 tons of paying freight, cannot live as a mere feeder to the waterways.

The slight degree of efficiency in the conduct of transportation attained by the Prussian railways is brought out with force and clearness in an article by Mr. Todt,* former *Eisenbahndirektions-Praesident*, whom German railway managers and engineers hold in high esteem and whom the Government often quotes in Parliament.† Mr. Todt is arguing, in this article, in support of one of the theses underlying the Government's recent canal proposals—namely, that the railways of the Ruhr district will shortly be unable to handle the traffic of that district, and that the only way out of the difficulty is to build a canal. The Ruhr district, he points out, is served by five through lines, which are equipped in all with nine through tracks.‡ The traffic is grow-

* *Zeitung des Vereins Deutscher Eisenbahnverwaltungen*, November 8, 1899. Reprinted as No. 1 in *Sammlung von Schriften zur Kanalfrage*.

† *Ibid.*, February 9, 1901, Mr. von Miquel.

‡ These lines in 1899 carried 85,400,000 tons of freight, or 111,500 tons per mile of line. In that portion of the district through which the Government proposes to build the Rhine-Elbe canal, the traffic density rose to 250,000 tons per mile of railway. See *Statistik der Gueterbewegung auf Deutschen Eisenbahnen, nach Verkehrsbezirken geordnet*, 1899; *Archiv fuer Eisenbahnwesen*, 1900, Heft 5; and *Zeitung des Vereins Deutscher Eisenbahnverwaltungen*, December 12 and 19, 1900.

Poor's Manual of Railroads, 1900. The Pittsburg and Lake Erie

ing rapidly; but the Government is right, he holds, in maintaining that it is out of the question to build new through lines, or to lay more than three additional through tracks, or to increase materially the existing terminal facilities, although these last are scarcely adequate for the present volume of traffic. The great rise in the price of land caused by the extraordinary industrial development which began in 1886-87, and continued with slight interruptions to the close of the century, has made such measures quite impossible.

Mr. Todt next states that in the last 10 years the train-load in the coal traffic has been raised from 400 to 500 tons, and that it will probably reach 600 tons in 1910. The average load of the coal cars has already been raised to a little over 12 tons, by the introduction of cars with a capacity of 15 tons; by 1910 the 10-ton cars will be almost entirely displaced, and the average load of the coal car increased to a little over 14 tons. The economy of large cars Mr. Todt illustrates by saying that a train carrying 600 tons loaded in 15-ton cars would occupy 50 per cent less space than a train of the same weight made up of 10-ton cars; and that this is a saving of great importance, in view of the fact that they were suffering from an insufficient number of through tracks, and still more from a lack of terminal facili-

R. R. Co. operates 180 miles of railway between Pittsburg and Youngstown, Ohio, and carried, in 1899, 77,500 tons per mile of line.

ties. If the Government could but make up its mind to adopt 20-ton cars, a further saving of 25 per cent to 30 per cent in track space could be effected.* But he feared that was out of the question, for several reasons.

To begin with, to replace the present stock of coal and coke cars with 20-ton cars would cost 500,000,000 marks — double the cost of the proposed Rhine-Elbe canal. Besides, it would be wasteful to discontinue the use of cars that still had from 20 to 30 years of life, to say nothing of the danger of overstimulating the car-manufacturing industry by placing an order of 500,000,000 marks to be filled within 10 years. But of much more importance was the consideration that the permanent way as a rule permitted a pressure of only 7 tons per car-wheel, though on some portions of the main lines the limit of pressure was being raised to 8 tons. A 20-ton, 4-wheel car would exert a pressure per wheel of 7.5 to 8 tons, and it was entirely out of the question to incur the expense

* Compare *Organ fuer die Fortschritte des Eisenbahnwesens*, 1891, *Ergaenzungsheft*.

	CAPACITY	PAYING FREIGHT PER 1 FOOT OF TRACK
	Tons	Pounds
Box car	30	1600
Box car	20	1070
Open car	30	1930
Open car	15	970

of raising the whole permanent way to the 8-ton standard.* It was true, indeed, that a 20-ton car running on two 4-wheel trucks would exert a pressure per wheel of only four to five tons, but such cars were so much more costly than the 4-wheel cars that the Government could not think of supplying them. These arguments of Mr. Todt have been often quoted by the Ministers of Finance and of Public Works in support of the Government's recent canal bills.

The dependence of the Government upon railway revenue, and its unwillingness to sanction heavy outlays which would not immediately produce correspondingly large returns, was also responsible for the failure to equip the railways of the Ruhr district properly, when it had a chance years ago, with third and fourth tracks and terminal facilities. There were in 1899, all told, only 75 miles of third and fourth track upon the Prussian railways, and in the Ruhr district only 11 miles.† In other words,

* Compare also Professor Goering in *Zeitschrift des Vereins Deutscher Ingenieure*, March 19, 1898; and *Stahl und Eisen*, August 1, 1898.

† *Statistik der im Betriebe befindlichen Eisenbahnen Deutschlands, bearbeitet im Reichs-Eisenbahn-Amt*, 1899.

	STATE RAILWAYS OF PRUSSIA	STATE RAILWAYS OF RUHR DISTRICT
	Miles	Miles
Single track . . .	11,290	248
Double track . . .	7,532	327
Third track	24	8
Fourth track	51	3

there is hardly any separation of the different sorts of traffic moving in the same direction: express and local passenger trains, "through" and local freight trains, all run on the same track, as a rule, even in the Ruhr district, which is said to have the densest railway traffic in the world. Freight trains, therefore, have constantly to be side-tracked in order to allow passenger trains to pass; and the time during which they are thus held back is made unduly long by the fact that there are not enough stations equipped with sufficient sidings. If there were enough stations properly supplied with side-tracks, freight trains might slip from one station to another between passenger trains that follow each other comparatively closely; but under present conditions they must often wait for several passenger trains to pass before they may venture to run to another station. This is the explanation of the frequent serious blocks in traffic in the Ruhr district and of the so-called car famines, there and elsewhere, which prevent the Railway Department from getting the maximum use out of its rolling stock. This is a matter of importance both for the railways and the general public. The rolling stock of the Prussian railways represents a heavy investment of capital that rusts out almost as quickly as it wears out; and the coal-mine operators, for example, complain that the failure of the Railway Department to furnish cars leads, at times, to such an accumulation of coal

at the mines as to necessitate the temporary closing down of their works.*

In the course of the controversy over the Prussian Government's recent canal bills, it was suggested, as an alternative scheme, that the State
The Railways as relieve the congestion of traffic in the
Mere Feeders to Ruhr district by building from the
Waterways Rhine to the Elbe a railway which should carry freight only, and which should be equipped with cars of a capacity of 30 and 45 tons. It was maintained that such a railway would begin operations with an annual traffic of 21,000,000 to 22,000,000 tons. But Mr. Todt met the suggestion by asserting that fully two-thirds of the traffic in contemplation would continue to enter and leave the Ruhr district by way of the Rhine, making use of the proposed railway within the district for only an average haul of 25 miles.† It would be unprofitable, he said, to spend a large sum on a railway from the Rhine to the Elbe, when that railway would be used only at one end — would become, in effect, only a 30 or 40 mile feeder to the Rhine traffic. In that remark, Mr. Todt put his finger on one of the chief immediate reasons for the Government's canal project, so far as it is put for-

* *Stahl und Eisen*, 1898, pp. 165, 689 and 1124.

† *Zeitung des Vereins Deutscher Eisenbahnverwaltungen*, January 3, 1900. Reprinted under the title, *Die Gueterbahn*, in *Sammlung von Schriften zur Kanalfrage*. Compare also Sympher: *Die Wirthschaftliche Bedeutung des Rhein-Elbe-Kanals*, Vol. I, pp. 26 and 27.

ward especially with a view to meeting the exigencies of the situation in the Ruhr district. Water transportation in Germany, especially by the larger rivers, is in the lead; it takes much of the profitable long-distance traffic from the railways, leaving them impoverished. To make money and thus be in a position to make itself efficient, a railway needs the whole business arising from the industry of any particular region, like that along the Ruhr, and not merely the fag-end of that business within the region itself.

In 1894, before he had become, in hopelessness of getting anything better, a convert to the Government's canal policy, Mr. Todt made this idea stand out in the sharpest possible manner. At that time he cited the condition existing in the Ruhr district as proof of the assertion that the railways must be allowed to make their rates sufficiently elastic to meet the competition of the waterways and to develop long-distance traffic.* The traffic carried into and out of the district by way of the Rhine ports, Ruhrort, Duisburg and Hochfeld, he said, went on an average only 19 miles by rail. The freight cars engaged in this traffic made annually 80 round trips of a little over 30 miles each, or, in the aggregate, 2500 miles, which particular achievement was to be contrasted with the 60 round trips of 175

* *Zeitung des Vereins Deutscher Eisenbahnverwaltungen*, March 7, 1894, and January 19, 1898; also *Archiv fuer Eisenbahnwesen*, 1887.

miles each — or a total of 10,500 miles — made by the average freight car on the Prussian railways in general. Whether the round trip was 30 miles or 175 miles, moreover, in either case two days must be allowed for loading and unloading. The result was that the work done by a freight car in the Rhine port traffic was only one-quarter of that done by the average freight car of the Prussian railway as a whole. To put the matter somewhat differently, the average receipts per ton-mile for the short-haul Rhine port traffic were about 2.422 cents, and they barely covered expenses. On the other hand, in the coke and iron-ore traffic between the Ruhr district and the Saar coal and iron fields, which involved a haul each way of 220 miles, the average receipts per ton-mile were 0.761 cent, and they yielded a handsome profit over expenses.

Mr. Todt concluded his argument with the statement that fully one-half the expenses of the Railway Department were incurred in paying interest on the railway debt, and were independent of the volume of traffic. One-quarter to one-half of the operating expenses, also, were independent of the volume of traffic — within very wide limits. In other words, 67 to 75 per cent of the expenses of doing business were, within certain limits, independent of the volume of business done; and the only means of reducing the cost per unit of business done was to increase the aggregate of units. He drew attention to the

fact that from 1887-88 to 1891-92 the average train-load had remained practically stationary at 159 tons. That load was most unsatisfactory, when one realized that it was considerably below the hauling power of the locomotives and remembered that 85 per cent of the traffic of the Prussian railways was carried in car-load lots of 10 tons. Unbending adherence to an ideal scheme of charges was embarrassing the Railway Department in its efforts to make economies on the basis of increased long-distance traffic.

Since Mr. Todt made this argument (which was repeated in 1898) the Government has stated that even the rate of 0.484 cent per ton-mile on the long-haul coal traffic from the Ruhr district to Bremen and Hamburg is profitable.* Again, one of its members has pointed out that, if the 4,500,000 tons of coal which are carried each year from the Ruhr district to Holland in solid through trains should be carried to the Rhine ports of the district for transshipment to vessel, the resulting congestion would be all but unbearable.† Handling traffic which starts in the Ruhr district but goes through in solid train-loads rising to 500 tons is a very different matter from handling traffic which goes in small lots and

* *Preussische Jahrbuecher*, May, 1901. Speech by Freiherr von Zedlitz und Neukirch, parliamentary leader of the Free Conservative Faction.

† Speech in the Reichstag, December, 1900, by Minister of Public Works, Von Thielen; cited in F. Fisher's *Die Brennstoffe Deutschlands und der Uebrigen Laender und die Kohlen-noth*.

starts and ends, so far as the railway is concerned, within the district itself.

To sum up, the technical situation in respect to the Prussian railways generally (not those of the Ruhr district alone) is such that an expenditure of hundreds of millions of marks (far more *Political versus Commercial Rate-making* than is necessary for the proposed canals) is required to enable them to handle the increase of traffic that would come with such rates as the present-day competition between the world's great manufacturing countries demands. The financial situation, on its side, is that the State is dependent on the railways for revenue and is deprived, moreover, of the best-paying long-distance traffic by the waterways. Naturally enough, it shrinks from great and expensive works which oftentimes under existing conditions would not pay.

But there is no difficulty here, apart from politics, which is insurmountable. To make possible, without strain upon the State's finances, the expenditures necessary for technical reconstruction, all that is needed is a sufficient increase of railway earnings from increase of traffic on all those lines which are not at present overburdened. That an enormous increase of traffic could be secured is clear beyond reasonable doubt. The bulk of the existing traffic that now seeks the waterways would prefer the railways on anything like equal terms; and all over Germany lie resources either undeveloped, or but

partially developed, for lack of sufficiently cheap transportation facilities.* Were the Railway Department at liberty to charge what the traffic will bear, it could begin by developing the more favorable sources of traffic, and could from time to time take up the development of the less favorable sources. At the same time, it could be improving the road-bed equipment and terminal facilities, step by step, at those points where not more traffic but better plant is the pressing need. In short, if it had freedom of action, the Railway Department could make one hand wash the other, as we say: it could carry out a scheme whereby traffic earnings and expenditure would approximately keep pace with each other. At the end of 10 years (the time set for the building of the Rhine-Elbe canal) the railways, without seriously impairing the railway surpluses from year to year, could be brought to such a degree of efficiency that they could, even without further improvement, render greater and better service than canals ever could give.

But the Railway Department is not at liberty to charge on the basis of what the traffic will bear; and hence it cannot get the means to relieve the congestion of traffic in the Ruhr district, for the remedying of which the Rhine-Elbe canal is primarily proposed. Similarly, it cannot compete for the

* Compare Sympher: *Die Wirthschaftliche Bedeutung des Rhein-Elbe-Kanals*.

extensive traffic now carried by water to and from Mannheim and Rotterdam, or develop the now insignificant but profitable rail traffic between the Ruhr district and Alsace-Lorraine, as well as between the Rhine ports and Berlin and the eastern Provinces. Furthermore, it cannot render wholly unnecessary the project for a canal costing 40,000,000 marks between Berlin and Stettin, though the present railway between those cities, far from being overburdened, carries little besides passengers and express parcels. In a word, such is the existing state of affairs that it is considered a less difficult and revolutionary proceeding to try to help the industries of Prussia by extending the system of waterways, and making that as efficient as possible (at the same time protecting railway earnings by canal tolls), than it would be to make war on the existing waterways and so provide the means for making the railways as efficient as possible. In the United States war to the knife is constantly waged by the railways against the waterways, and that is one of the chief reasons why we have efficient railways.

In 1886 the Prussian Government informed the Diet that it cost the Railway Department on an average 0.353 cent per ton-mile to handle freight in car-load lots, excluding a charge of 0.443 cent per ton-mile for interest on the capital investment.* In 1901 it

* Director Stroeble in *Glaser's Annalen fuer Gewerbe und Bauwesen*, October 15, 1890.

informed the Diet that the cost in question was 0.346 cent, excluding a charge of 0.173 cent per ton-mile for interest, at the rate of *Cost of Transportation not reduced* about 4 per cent upon the capital.*

In other words, so far as the average of operating expenses per ton-mile was concerned, there had been but the slightest improvement during this period of fifteen years. The increase of earning power during the same time has resulted, not from economies effected in cost of carrying freight, but from the huge increase in the volume of traffic. This last has lowered from 0.443 cent to 0.173 cent the sum with which each ton-mile of freight was charged in order to make a total return of 4 per cent upon the capital invested. This great increase in the volume of traffic, in turn, has been due only in small part to efforts made by the Railway Department to force the growth of traffic by lowering railway charges. In the main it has been the result of the industry, daring and genius of the German merchants and manufacturers, who created in all parts of the world markets for their products, and who have been enabled to reach those markets through the coöperation upon the rivers of Germany and upon the high seas of a body of men second to none in progressiveness and general efficiency. Indeed, what German shipowners, shipbuilders and

* Mr. Sympher in *Zeitschrift fuer Binnenschifffahrt*, 1901, Heft 10; and *Zeitung des Vereins Deutscher Eisenbahnverwaltungen*, May 4, 1901.

sailors are accomplishing upon the ocean is one of the world's marvels. There is no reason to suppose that upon the land German railway men have inherently any less business and engineering capacity. Without doubt under a *régime* of free private railways they would at least acquit themselves with credit. As it is, men like Mr. Todt have no chance.

The ultimate and insurmountable difficulty in the Ruhr district and in the Prussian railway situation as a whole is not technical or financial — it is political. The Railway Department is not permitted to conduct the business of the Department upon business principles, but is compelled to conform to an ideal scheme of supposed equality. This pith of the whole matter was most pointedly set forth in 1894 by the Minister of Finance, Mr. von Miquel, when he stated in the Prussian Diet that it would prove impossible to retain the State ownership of the railways in Prussia unless it should be practicable to make rates in accordance with hard and fast rules, such as those based upon "cost of service." It would be impossible, he said, to make rates for particular occasions to meet the needs of those occasions; for rates made in that manner were arbitrary, and exposed the Government to the suspicion and to the open charge of favoring one district or trade and handicapping another.* Again, in 1901, Messrs.

*Government Control means Dis-
tance Tariff*

* E. von Eynern: *Zwanzig Jahre Kanalkampfe*.

Schwarz and Strutz, high officials in the Prussian Ministry of Finance, concluded their large volume upon the *Finances of the Railway Department* with the statement that it was out of the question for the Government to base railway charges upon the principle of charging what the traffic will bear. That practice would precipitate a "measureless" conflict of interests. It would bring the question of railway rates into politics, by carrying into the domain of rate-making the real and imagined conflicts of interest between the farmer, the trader and the manufacturer; between the agricultural East and the industrial West; between the large producer and the small producer; between the city and the country.* That this is no mere conjecture has been made abundantly clear by the evidence now before us. As a matter of fact, whenever Ministers of State have sought to depart from the existing scheme of rates, and to give the Railway Department more leeway in respect to charging what the traffic will bear, they have invariably brought down upon their heads a storm of protests from local interests which puts all their other measures, Prussian and Imperial, in jeopardy. The responsibility for the existing *impasse* lies back of Railway Department and Ministers. We have here simply an example of the inevitable break-down of large-scale "coöperation" — of an extensive enterprise of State socialism car-

* *Die Eisenbahn Verwaltung*, p. 1053.

ried on by many persons who are actuated by many different sorts of motives and who represent many different degrees of intelligence. Some one individual, acting eye-single to his own long-run pecuniary advantage, and dealing in full independence as an outsider with all the persons to be managed and all the interests to be harmonized, is essential to the efficient conduct of business. Government may make and execute general laws holding the managers of the world's business to their long-run interest, which they occasionally lose sight of, and which is the interest of all; it may, in several ways, give them a general assistance; it may not undertake to do their work for them.

CHAPTER IV

THE RECENT CANAL BILLS

IN the years 1880-90 the average sum received by the Prussian railways for carrying one ton of freight one mile declined 12.25 per cent,* and during the same time the general level of prices in Germany fell 2 per cent. In the years 1890-99 the per ton per mile railway charges and the general level of prices declined 3 per cent and 16 per cent respectively. It thus appears that there is no correspondence in Germany between the fall in rates and the fall in prices; and a comparison of Germany and the United States further reveals how little, relatively, the State railways of Prussia have done toward helping the country to adjust itself to the general and world-wide fall of prices. In Germany, for the whole period 1880-99, prices fell 17.6 per cent and railway charges fell 14.7 per cent. In the United States, on the other hand, prices fell 24.3 per cent and railway charges 41.7 per cent.†

* *Zeitung des Vereins Deutscher Eisenbahnverwaltungen*, March 9, 1901.

† *Quarterly Bulletin of the Bureau of Economic Research*, July, 1900.

This comparison is of more significance than might at first sight appear, for Germany and the United States have, during the last twenty-five years, been undergoing the same industrial transformation. Each country is changing from a community primarily agricultural to what the Germans call an *Industrie Staat*; each is constantly more and more dependent on selling commodities on narrow margins of profit in the international market. In the years 1882-90 Germany raised its share in the world's total import and export trade from 10.3 per cent to 10.9 per cent. From 1890 to 1896 it made no further gain; but in the four years ending with 1900, its quota advanced to 11.8 per cent. From 1882 to 1896 the share of the United States in the world's international trade barely held its own, at 9.9 per

AVERAGE RECEIPTS PER TON-MILE

	RAILWAYS OF PRUSSIA		RAILWAYS OF THE UNITED STATES	
	Cents	Per Cent	Cents	Per Cent
1880 . . .	1.498	100	1.232	100
1890 . . .	1.315	87.8	0.941	76.5
1899 . . .	1.278	85.3	0.725	58.3

INDEX OF PRICES

	GERMANY	UNITED STATES	ENGLAND
	Per Cent	Per Cent	Per Cent
1880	100	100	100
1890	98	86.7	88.7
1899	82.4	75.2	75.7

cent; during the four years 1897-1900, however, it rose to 10.9.* Down to 1893 the United States was still for the most part an exporter of agricultural produce and provisions; but since 1896, as is well known, it has become a formidable rival of Great Britain and Germany in the world's market in many kinds of manufactured articles. Indeed, German men of affairs, in discussing the future of Germany, are inclined to leave Great Britain out of consideration and to confine themselves exclusively to the study of the conditions of production in the United States.† But this attitude of mind is somewhat recent. As late as 1879 a number of experts in iron

* *Gewerbe und Handel im Deutschen Reich* (Census Report), Vol. 119 of *Statistik des Deutschen Reichs*; and *Nauticus*, 1901, *Jahrbuch fuer Deutschlands Seeinteressen*.

PROPORTION IN TERMS OF PER CENT BORNE BY THE IMPORTS AND EXPORTS OF THE COUNTRIES NAMED TO THE TOTAL EXPORTS AND IMPORTS OF THE WORLD

	1882	1890	1896	1900
Germany	10.3	10.9	10.8	11.8
United States	9.9	9.9	9.4	10.9
Great Britain	19.7	18.4	17.7	17.4
France	11.1	9.7	8.0	7.8

† *Stahl und Eisen*, June 1, 1901.

PRODUCTION OF PIG IRON IN THOUSANDS OF TONS

	1870	1880	1890	1900
Great Britain	6,000	7,722	7,875	9,051
Germany	1,391	2,729	4,658	8,422
United States	1,691	3,896	9,353	13,789

[Foot-note continues to page 96.]

and steel, sent from Germany to the United States, reported that the latter country could not become a competitor with Great Britain and Germany in the international steel and iron markets, no matter what improvements should be made in the conduct of transportation, for the distance separating the coal fields of Pennsylvania from the ore deposits of the region of the Great Lakes was too great to be bridged.

Since 1882 the population of Germany has increased by 11,300,000. More than 95 per cent of this increase is found in cities of upward of 5000 inhabitants, and more than one-half in cities of upward of 100,000. In other words, nearly the whole increase of population which has taken place since 1882 lives by trade and industry. A large part of that trade and industry consists in the importation of raw materials from all parts of the world, in working up these materials and in exporting the finished product. Then, too, there is much manufacture of native materials for export and some combination of native materials with foreign materials; and, obviously, in all this there is the necessity of much trans-

F. C. Huber, *Deutschland als Industriestaat*.

PRODUCTION OF STEEL IN THOUSANDS OF TONS			
	1880	1895	1899
Great Britain	1,300	3,400	4,900
Germany	600	2,800	6,300
United States	1,300	6,300	10,700

portation in order to assemble and reassemble the parts of the final exportable goods. The value embodied in these goods by German labor and capital is the means by which the otherwise surplus population of Germany is supported. The exports pay for imports of agricultural products and other provisions to the amount of one-fifth to one-quarter of the total consumed by the German people.* Should the balance of forces regulating the growth of exports come to be such as to stop that growth, the imports of food-stuffs — and also of materials for clothing and shelter — would be correspondingly curtailed; and, as a further necessary consequence, the recent increase of population would be checked and emigration would again assume the proportions of the seventies and early eighties.† Ability to compete in

* *Jahrbuch des Deutschen Wirthschaftslebens*, issued by the *Institut fuer Gemeinwohl Frankfurt a. M.* Cf. *Handel und Gewerbe*, Dec. 14, 1901.

† *Statistisches Jahrbuch fuer das Deutsche Reich*, annual issues; *Annalen des Deutschen Reichs*, No. 3, 1901.

	IMPORTS PER HEAD		EXPORTS PER HEAD		EXPORTS AND IMPORTS PER HEAD
	Total.	Food-stuffs	Total.	Manufactures	
	Marks	Marks	Marks	Marks	Marks
1880	63	20	65	37	128
1890	86	28	70	44	156
1899	104	31	78	49	182

	EMIGRATION PER 1000 INHABITANTS	INCREASE OF POPULATION
1880-84	3.80	3.59 per cent.
1885-89	2.09	5.49 " "
1890-94	1.84	5.77 " "
1895-99	0.53	7.78 " "

the world's market is a vital matter for Germany; for it is that alone which has enabled her of recent years to substitute the export of manufactures for the export of men.

To this achievement the State railways have contributed in the past practically nothing. The burden has been thrown upon private industry and upon *Railways contribute Little to Industrial Growth* water transportation. The initial cost of production has been reduced enormously in almost every branch of manufacture, and the charges upon the waterways have been cut in half; whereas the charges upon the railways have declined but little, and that little not in the form which would be of the greatest use. Nor will the railways be able to do much more in the future than they have done in the past, since they are handicapped not only by the fact that they may not charge flexible rates, but also by the fact that they have been made a leading agency of taxation.

It is considerations such as these — in respect to population, exports, the world's competition and the inability of the railways to help — that have led the recent administrations of Prussia to advocate the building of canals, notwithstanding that the administrations of the seventies and early eighties had held that the experience of Germany and of other countries had demonstrated that canals did not pay, "statements to the contrary being usually

based on underestimates of cost.”* Said Prussia’s greatest Finance Minister, Von Miquel, in the course of the speech in which he announced that it would scarcely be feasible to raise by taxation the net sums the Railway Department had been contributing to the exchequer, “Canals were things of the past, but they have come back.”

In 1899 the Government laid before the Diet a proposal to complete the Dortmund-Ems canal by continuing it to the Rhine, at a point near Ruhrort and Duisburg, through the centre of the Ruhr district; and to build a second canal navigable by vessels of 600 tons, from a point on the Dortmund-Ems canal to the Weser, and thence to the Elbe near Magdeburg. The execution of the proposed scheme would have made, in connection with the rivers and existing canals, a continuous trunk-line waterway from the southwest to the northeast of Germany, with cross waterways, or feeders, from the Russian and Austrian borders to the Baltic and the North Sea.

The argument in support of the bill consisted of two parts.† The first alleged that the railways of the Ruhr district had come to the limit of their freight-carrying capacity and must be supplemented by a canal. This argument resolved itself into the financial consideration that in the last few years the

* *Archiv fuer Eisenbahnwesen*, 1901, Heft 2.

† *Zeitung des Vereins Deutscher Eisenbahnverwaltungen*, March 11 and 22 and April 19, 1899.

growth in the net revenue yielded by the Railway Department had not kept pace with the increase in gross revenue — that there was danger of the railway surplus falling off considerably, should the Government spend hundreds of millions of marks in bringing the rolling-stock, the permanent way and the station facilities of the Ruhr district up to the requirements of the growing trade. Under the circumstances, the Government preferred to turn this embarrassing traffic over to the proposed canals.

The second part of the argument, and that upon which the Government ultimately laid most stress,* was that the agricultural interests of Prussia, as well as the manufacturing and mining interests of Germany as a whole, must have lower transportation rates than they had had in the past; that transportation upon waterways was by nature cheaper than transportation upon railways; and that, therefore, the railway system ought to be reënforced by canals. In support of the contention that transportation charges had been too high, it was pointed out that, notwithstanding the fact that the Ruhr district produced 39 per cent of the pig iron of Germany and Silesia only 8 per cent, the total traffic exchanged by rail between the Ruhr district and Berlin was but one-fifth as large as the total traffic by rail between Silesia and Berlin. Again, though in 1898 the

* *Bericht der XVIII Kommission zur Vorberathung des Entwurfes eines Gesetzes betreffend den Bau eines Schiffahrts-kanals vom Rhein bis zur Elbe*, etc., pp. 48, 50 and 84.

provinces of East and West Prussia, Pomerania, Posen, Silesia and Brandenburg sold and shipped by rail some 1,500,000 tons of timber and lumber, less than 30,000 tons of this reached Rhenish Prussia. The eastern Provinces with difficulty found a market for their surplus timber, while Rhenish Prussia had to draw more and more upon foreign countries for its supply.* It was stated by the Minister of Agriculture that the opening of the proposed canals would increase the net annual revenues obtained from the Crown forests by 10,000,000 marks, or 25 per cent.†

But despite this second part of the Government's argument, financial considerations came, in the end, to occupy a predominant position. The Ministers in charge of the bill proposed a scheme of graded canal tolls, partly for the purpose of making the canals pay the cost of their maintenance, as well as the interest on the money invested in them, and partly for the purpose of regulating the competition of the waterways with the railways. In other words, to protect its huge investment in the railways, the Government proposed to get and keep control over the rates on the waterways by means of a scheme of tolls

* *Zeitschrift fuer Binnenschifffahrt*, 1901, supplement to Heft 5 and Heft 9 and 11. V. Kurs, one of the leading authorities upon the statistics of the traffic upon the waterways, states that 500,000 tons of lumber are sent annually by way of the Baltic and the Weser and the Rhine from eastern Prussia to Rhenish Prussia and Westphalia.

† E. von Eynern: *Zwanzig Jahre Kanalkaempfe*, p. 143.

on the canals, which tolls should be raised or lowered to suit the combined requirements of commerce and the State treasury.*

Mr. von Miquel, as Minister of Finance, added in the most emphatic terms that the Government would not listen to requests for reductions in railway rates from districts or interests that thought the proposed canal would put them at a disadvantage as compared with some rival district or interest. The Railway Department must continue to have the power to make such rates as were to its advantage. Should the State enter upon the policy of giving one district or interest reduced railway rates, by way of compensation for a canal given to some other district or interest, the result would be that the railway revenues would disappear through the granting of excessive abatements in railway charges; and again, so far as the canals were concerned, either the Government's plans would be completely blocked by sectional jealousies, and canal building thus stopped altogether, or the Government, forced too far, would waste the State's resources upon the building of unnecessary canals. What the granting of "compensations" led to, the local governing bodies of Prussia had learned to their sorrow in building highways and "secondary" or narrow gauge railways. To carry such "log-rolling" into the National Diet

* *Zeitung des Vereins Deutscher Eisenbahnverwaltungen*, April 22, 1899, Mr. von Miquel; also February 9 and April 27, 1901; and *Zeitschrift fuer Binnenschifffahrt*, 1901, Hefte 6 and 11.

would be nothing short of disastrous to the public treasury.*

Shortly after the Minister of Finance had taken this uncompromising stand on the question of "compensations," the Committee of the Diet, appointed to consider the canal bill, reported adversely. Thereupon his Excellency, the Prince zu Hohenlohe, President of the Prussian Ministry and Chancellor of the Empire, who had thus far taken no part in the debate, informed the Diet that the Government had reconsidered and would take measures to protect those districts which should derive no benefit from the proposed canals. If necessary, he said, such districts should have reductions in railway rates which should counterbalance the advantages accruing to their competitors from the canals. The Diet then resubmitted the bill to the Committee, with instructions to investigate and report upon the matter of compensations.† Not long after, as the *Zeitung des Vereins Deutscher Eisenbahnverwaltungen* reported, demands for compensations came in from all parts of Prussian territory in such volume that it was impossible to undertake to enumerate them. The representatives from Silesia, who feared the competition of the Ruhr industries in Berlin and other common markets, were most insistent on

* *Zeitung des Vereins Deutscher Eisenbahnverwaltungen*, March 22 and April 19, 1899.

† *Ibid.*, June 17 and 28 and July 1, 1899. For characteristic requests see issues of January 11, March 18, April 29 and August 2 and 5, 1899.

compensation. Their parliamentary leader, Count Strachwitz, induced the King to sanction with his own word the promise of his Prime Minister in respect to compensations, and then had the whole matter embodied in an amendment to the bill.*

The debate on the canal bill precipitated a conflict of sectional and class interests that completely disillusionized many people who, under the influence of economists in reaction against Adam Smith, had persuaded themselves that the State could carry on the business of transportation, foster infant industries and otherwise intervene in the money-getting affairs of men, without reducing politics to "a seething and struggling aggregate of numberless localisms — rarely or never losing themselves in the stream of national feeling." Count Kanitz, the leader of the opposition to the bill, led off with the statement that the proposed canals would promote the concentration of industry in the West at the expense of the East, and thus cause the latter to suffer still further losses of its laboring population.† Count Limburg-Stirum, leader of the Conservative Party, indorsed the statement that the proposed canals would enrich the West at the expense of the East. Count von Ballestrem, President of the Reichstag in 1900 and

* *Zeitung des Vereins Deutscher Eisenbahnverwaltungen*, September 16, 1899.

† E. von Eynern: *Zwanzig Jahre Kanalkämpfe*.

leader of the faction of the *Centrum* (Catholic Party), said that the newspaper press had represented the conflict as one merely between the landed interests and the industrial interests. That was a misrepresentation. The conflict was between the industries of the Ruhr district, on the one hand, and the industries of the Saar, of Silesia and of the other industrial centres, on the other hand. His own constituents—the farmers, manufacturers and traders of Silesia—were united in opposing the bill, unless they could obtain satisfactory concessions in the way of reduced railway charges. Mr. von Koeller, for many years President of the Prussian House of Deputies, indorsed the statement that the fight was not alone between industry and agriculture, but also between the Ruhr and the other industrial centres. After the bill had been defeated, the editor of *Stahl und Eisen* wrote that the conflict of interests between the different industrial centres, which had shown itself in connection with the debate on the canal proposals, was but a reappearance of the old conflicts attending all efforts to reduce railway rates on iron ores.*

There were many other aspects of this seething mass of localisms. Hamburg, for example, opposed the canal on the ground that it would redound primarily to the benefit of Bremen. Emden, at the mouth of the Dortmund-Ems canal, feared that it

* *Stahl und Eisen*, April 1, 1900.

would benefit the Dutch ports and their virtual outposts, Ruhrort and Duisburg. The lumber mills of the Ruhr district feared that the canal would bring in the cheap timber and lumber products of eastern Prussia and Russia. The coal-miners of Saxony feared an invasion of Ruhr coal. All of these interests and others, though quarrelling among themselves, the Agrarians brought together into a solid opposition that defeated the Government's measure. The Agrarians, or landed aristocracy of Prussia, themselves feared that the proposed canal would immediately and directly injure them by facilitating the importation of foreign agricultural produce; but they feared still more that the proposed improvements in the means of transportation would hasten Germany's advance as an industrial State, and thus more remotely and indirectly impoverish the landed interests by increasing wages and the scarcity of agricultural labor. They also dreaded, should the industrial West prosper more and more, the eclipse of themselves politically, through the rise into power and consideration of yet more new men—the great leaders of industry, in addition to bankers and merchants.*

There was another instructive aspect of the parliamentary struggle over the canal bill. When this measure was introduced into the Diet, the parliamentary parties or factions did not treat it at all as

* *Zeitung des Vereins Deutscher Eisenbahnverwaltungen*, March 30, 1901.

a party measure. The individual members of each party or group approved the bill or opposed it, according as it appeared advantageous or harmful to their constituencies. But as time went on, the measure became more and more a party measure; and oftentimes the attitude of a faction or party depended, not upon the supposed merits or demerits of canals, even when regarded from the most parochial point of view, but upon ulterior party motives. Thus the interest in the bill of the members of the Liberal Party ultimately came to be, to no small extent, that the casting of the Conservative (Agrarian) vote against the bill might mean a permanent rupture between the Crown and the Conservative Party, and therefore might lead to an alliance of the Crown with their own party.* Again, at one time *Germania*, the organ of the Catholic Party, informed "the friends of the canal, in Parliament and in the Administration," that if the electoral bill then before the Diet should be lost, the canal bill would be defeated also.† The Conservative Party, in turn, opposed the bill partly in order to demonstrate to the Crown that it could not carry on the Government without the support of the landed aristocracy. It

* *Preussische Jahrbuecher*, May, July, September and October, 1899; and current issues of *Muenchener Allgemeine Zeitung*.

† *Muenchener Allgemeine Zeitung*, August 15, 1899; E. von Eynern: *Zwanzig Jahre Kanalkaempfe*; and G. Zoepfl: *Auswaertige Handelspolitik und innere Verkehrspolitik*.

had not become reconciled to the new policy of the commercial treaties, inaugurated in the latter part of the eighties by the late Chancellor von Caprivi, under which, in 1894, the duties on agricultural products coming from Russia had been lowered, in return for a lowering of duties on German manufactures exported to Russia. The Prussian Government acknowledged this challenge when it replied, through Prince zu Hohenlohe, that the canal bill could not be disposed of as a separate measure; that the final disposition of the bill would have far-reaching consequences for the Conservative Party; that should there be a rupture between that Party and the Government, the effects would be felt by the Conservative Party when the Government took up the contemplated revision of the customs duties.*

Two days before the final vote on the bill, the King sent a telegram to the Minister of the Interior, Mr. von der Recke, instructing him to request deputies who were at the same time Government officials to abstain from voting or to resign their seats, should they be unable to vote affirmatively.† On Saturday, the 19th of August, the Diet rejected by a vote of 235 to 147 the proposal to connect the Dortmund-Ems canal with the Weser and the Elbe; and by a vote of 275 to 134 the proposal to extend the Dortmund-Ems canal to the Rhine. On the following

* E. von Eynern: *Zwanzig Jahre Kanalkaempfe.*

† *Die Nation*, January 12, 1901; and E. von Eynern: *Zwanzig Jahre Kanalkaempfe.*

day, Sunday, the King convened the *Kronrath* and signed the papers for the removal from office of some eighteen *Landraethe* and *Regierungspraesidenten* who had voted adversely.* He thereby broke with one of the finest unwritten provisions of the Prussian Constitution, which is that Prussian civil servants holding certain administrative offices may stand for election to the Diet, and thus become at one and the same time Crown officers and representatives of the people, thereby promoting the union of the people and the Government. Under that traditional constitutional arrangement, Crown officers had been oftentimes, most advantageously to the Commonwealth, the parliamentary leaders of groups or factions sitting in opposition to the Government. Struggles such as the one just described are not the sort which build up institutions; they only degrade and destroy.

In January, 1901, the Government laid before the Diet a second revised canal bill. The bill of 1899 had called for an expenditure of 261,000,000 marks; the new bill proposed to expend 339,000,000 marks. By "way of compensations" the Government now suggested a canal for vessels with a capacity of 600 tons from Berlin to Stettin, and numerous river and

* *Die Nation*, April 5, 1901; *Muenchener Allgemeine Zeitung*, April 3, 1901; *Jahrbuch fuer Gesetzgebung, Verwaltung und Volkswirtschaft im Deutschen Reich*, Vol. 24, Heft 3, articles by G. Schmoller and W. Lotz; and *Preussische Jahrbuecher*, October, 1899.

canal improvements in the territory of the Weichsel and the Oder,* the region where the Conservative Party is in greatest strength. It is said also to have intimated that it would return any favors shown in the course of the proceedings upon the canal bill, by making corresponding concessions when the bills revising the customs duties should come up.† The demands from the general public for "compensations" were as numerous and importunate as they had been in 1899, some of the electorates even demanding railways in return for the canals to be given other electorates.‡

The most important speech upon this second bill was made by Baron von Zedlitz und Neukirch, formerly President of the Board of Maritime Trade, leader of the "Free Conservative" faction of the Conservative Party. *The Canal Question and Customs Duties* and one of the officials retired in 1889 for voting against the first canal bill.§ Von Zedlitz began with the statement that the alternative to lower railway rates was lower wages to German labor. All railway charges on bulky articles ought to be lowered, he said, and special reductions given to those districts that would derive no direct

* *Zeitung des Vereins Deutscher Eisenbahnverwaltungen*, January 16, 1901.

† *Proteus* in *Die Nation*, February 9, 1901.

‡ *Zeitschrift fuer Binnenschifffahrt*, 1901, Heft 10; Mr. von Eynern, Chairman of the Committee on the canal bill.

§ *Zeitung des Vereins Deutscher Eisenbahnverwaltungen*, March 9, April 24 and May 1, 1901; *Zeitschrift fuer Binnenschifffahrt*, Hefte 6, 9 and 10; and *Preussische Jahrbuecher*, May, 1901.

benefit from the contemplated canals. The Diet could no longer leave it to the Government to take the initiative in reducing rates, but would have to insist on getting direct control of railway charges. Baron von Zedlitz then introduced in the most skillful manner the demands of the Conservatives for higher duties on grain, in return for the party vote for the canal bill. He maintained that the Prussian finances abundantly justified the canal expenditure, but that the finances of the Empire were anything but sound. There was great danger that Prussia would be called upon at any moment for large contributions to the Empire; and that danger could be removed only by putting the Imperial finances on a sound basis, by raising the duty on grain and other agricultural products. Until this sound condition had been attained, Prussia would not be justified in entering upon the construction of canals, contemporaneously with making heavy reductions in railway rates.

The Ministry as a whole made reply that the request for increased duties could not be entertained; because the Russian Minister of Finance had informed the Government that in Russia support for the commercial treaties with Germany came from the agricultural classes, and that therefore the treaty to expire in 1904 could not possibly be renewed on any basis of increased duties on grain imported into Germany. The Minister of Public Works, Mr. von Thielen, admitted that the costs of transportation

must be lowered if Germany was to continue to compete in the international markets. But they would have to be lowered by the building of waterways; the railways could not accomplish it, since they were handicapped by the fact that they must yield a large net revenue. The Minister of Finance, Mr. von Miquel, added that the Prussian Crown could never afford to give up the prerogative of fixing railway rates through its Ministers and the Railway Department. Moreover, to give the Diet the power to determine railway charges would but demoralize that body. It would lead to bitter struggles, particularly between those who would wish to appropriate any existing surplus for the construction of new lines and those who would wish to apply it to reductions in freight charges. It was impossible, also, to state in advance what reductions in rates could be made after the opening of the canals. Certain kinds of freight would be turned over almost entirely to the waterways, and the rest of the traffic would be divided in some proportion between the railways and the waterways through the regulation of the tolls on the canals. It was not proposed to regulate the railway rates by the water rates; and those manufacturers and miners who were supporting the canal bill because they expected keen competition between the waterways and the railways would be disappointed. The fact that the State had invested 7,000,000,000 marks in railways made it imperative that the State

should retain full control over both rail and water charges.*

The Conservative Party finally formed an alliance with the *Centrum*, or Catholic Party, for the following purposes: to accept the canal and the river improvements proposed for the territory east of the Elbe; to reject the proposal to connect the Rhine, Weser and Elbe; and to urge the connection of the Dortmund-Ems canal with the Rhine by improving the river Lippe. The improvements which the Government had proposed for the territory east of the Elbe the coalition accepted, as local measures which would benefit the eastern agricultural interests without facilitating the importation of foreign food-stuffs. It rejected the proposed Rhine-Weser-Elbe canal, because this would expose the western wheat and sugar to the competition of the eastern wheat and sugar; it approved the policy of respecting the claims of the agricultural interests of the West to the first

* *Zeitschrift fuer Binnenschifffahrt*, 1901, Hefte 9, 10 and 11. After the subsequent withdrawal of the canal bill of 1901 (for reasons presently to be described) there was some agitation for the formation of a stock company to extend the Dortmund-Ems canal from Dortmund to the Rhine. The Government repeated the statement, made under similar circumstances in 1894, that it might conceivably grant a charter to a stock company for the building of the proposed canal, but that under no circumstances would it give up the right to regulate the tolls upon the canals. Moreover, as throwing light on the complete State policy, several months previous to this occasion Herr von Miquel had informed the Diet that the Government was giving most careful consideration even to the question of reëstablishing tolls upon the rivers. (See *Jahrbuecher fuer Nationaloekonomie*, 1901, Heft 3; *Volkswirtschaftliche Chronik*.) The reason for this was that not only was it proper that those who used the rivers should reimburse the State for maintaining and improving the rivers, but also it might become necessary to regulate the competition to which the State railways were exposed.

right to the western market, and of affording relief to the agricultural East by making low rates on eastern wheat and sugar destined for export—in other words, the extension of the policy upon which the Government had entered when it established the disguised export bounty on grain.* It also opposed the Rhine-Weser-Elbe canal, on the ground that it would stimulate unduly the development of western manufacturing industry. Finally, it demanded that the Dortmund-Ems canal should be connected with the Rhine, if at all, by way of the river Lippe, and not, as proposed by the Government, by way of the river Ems; because the Lippe connection was more roundabout, and would, therefore, neither benefit the Dutch ports nor facilitate the importation of foreign wheat and lumber, as much as would the Ems connection.† As the Catholic Party holds the balance of power in the Prussian Diet and occupies a leading position in the Reichstag, the combination was a powerful one. The Administration's local election agents reported that the coalition had been made to cover even the management of the elections, and that therefore there would be no chance of the Government getting a Diet favorable to the canal proposals, should the present Diet be dissolved and an appeal made to the country.‡ The Govern-

* G. Zoepfl: *Auswaertige Handelspolitik und innere Verkehrspolitik*.

† Sympher: *Emscherthallinie und Kanalisierung der Lippe*.

‡ *Muenchener Allgemeine Zeitung*, May 3, 4 and 6, 1901. Compare also: *Preussische Jahrbuecher*, June, 1901.

ment, seeing that it was hopeless to continue the fight at that time, accordingly abandoned the bill by closing the session of the Diet.

The giving up of the canal bill of 1901 was followed by the resignation of Mr. von Miquel and the reorganization of the Prussian Ministry. Shortly after Von Miquel's retirement from office, he permitted himself to be interviewed on the subject of bringing the State railways of Prussia, Saxony, Wuertemberg, Bavaria, Baden and Hesse under one management. He pointed out that the practice of the several States of managing their respective railways, not in the interest of Germany as a whole, but rather on the supposition that the particular interests of the several States were in conflict with that general interest, was a condition of affairs which could not be suffered to continue without great harm to the material welfare of the German people. It was most desirable to bring the railways of Germany under one common head; but that common head must be Prussia, not the German Empire. In Prussia the fixing of railway rates was a prerogative of the Crown — the Diet had no direct hand in it. But if the railways of the separate States should be transferred to the Empire, the Reichstag could and would insist upon the right to make and revise the railway charges. The day on which that power should be given to the Reichstag would, however, mark the beginning of a great

*Legislative Rate-
making politically
Disastrous*

corruption of the German electorate. Already the character of the German voters was such that they sent to the Reichstag many representatives who asked, not how a given measure would serve their common country, but how it would serve their particular constituents. With the existing tendency to reduce the Representative in the Imperial Reichstag to the position of an instructed delegate, whose business it was to "get something" for his constituents, the bestowal upon the Reichstag of power over railway rates would be nothing short of disastrous to the politics of Germany, as well as to the economic development of the country.*

Undoubtedly the Crown prerogative in Prussia serves as a considerable barrier against the intrusion of politics, in its ordinary meaning, into the business of making railway rates and into the other details of general railway management, as there carried on by the State; but politics, nevertheless, has come in. Also, to look at the matter from the other side, undoubtedly, were this barrier removed, the Government's transportation business would have a greater corrupting influence upon politics — as that term is understood — in its higher meaning. We are, in fact, dealing here with principles of politics, true everywhere and always, irrespective of constitutional arrangements, provided, indeed, there is an

* *Zeitung des Vereins Deutscher Eisenbahnverwaltungen*, August 28, 1901.

elected Legislature. Said Burke, "If we do not permit our members to act upon a very enlarged view of things, we shall at length infallibly degrade our national representation into a confused and scuffling bustle of local agency."* For the State, beyond the exercise of minor police powers, to interfere at all with the pocket-book affairs of its citizens, is practically to compel representatives not to act upon an enlarged view of things, and to become so far forth precisely the chaffering and bargaining tools of local agency. In connection with every tariff bill, every transportation measure, to the end of time, there is certain to be a heart-breaking exhibition of greed and absence of patriotism. Only when a Government sticks to its simple and proper functions — prevention of violence and fraud, promotion of health and education; only when it conducts its affairs as nearly as may be in accordance with that grandest of political concepts, the historical-legal fiction that Government is constituted to obviate "the inconveniences of the state of nature," not to create and maintain organized society itself — only then is there a fair chance for the formation, in the place of many factions, of two parties in the Legislature, composed of intelligent, patriotic, high-minded members. In short, there is but one way to make a serious attempt to keep business out of politics, and that is for the State itself to keep out of business.

* Speech at the Guild Hall in Bristol.

In the winter of 1904 the Government abandoned the plan to connect the Rhine, Elbe and Oder by means of a canal, and accepted as unalterable the fact that, for purposes of trade, Berlin must continue to be more remote from the industrial centres on the Rhine than those centres are remote from New York, Buenos Ayres and Odessa. It brought in a canal bill based on the compromise offered in 1901 by the coalition between the Conservative Party and the *Centrum*. The Dortmund-Ems canal is to be completed by being extended to the Rhine. On the east, the Dortmund-Ems canal is to be connected with the Weser, but it is not to be connected with the Elbe. East of Berlin the Oder and its tributaries are to be improved; and Stettin is to be given a "differential" by means of the building of a canal between Berlin and Stettin. That canal will carry vessels with a capacity of 650 tons; it will cost more than the railway which connects Berlin with Stettin and carries less than 150 ten-ton car-loads of through freight a day.

The Prussian canal bills of 1899 and 1901 were based on the supposition that the transportation charges upon the canals would be fixed by steam vessels which would themselves carry 600 tons each and would tow two barges, each with a capacity of 600 tons. It was assumed that under those condi-

tions the average cost of moving low-value, bulky commodities, in large loads and over an average distance of say 225 miles, would be 0.242 cent per ton-mile. That cost included interest at 5 per cent on the capital invested in the vessels, and sinking-fund payments at the rate of 6 per cent a year, as well as the cost of keeping the vessels in repair.* To that average cost would have to be added the tolls, which were to range from 0.087 cent per ton-mile to 0.346 cent on bulky commodities, and were to rise to 0.692 cent on high-class freight. The Government argued that, even after the tolls had been imposed, the cost of moving freight by water would be much below the charges made in the past by the Railway Department, which had been such as to yield, in 1899, 0.893 cent per ton-mile on the so-called "exception-rate" traffic, and 1.253 cents on the traffic as a whole. It added, however, that the saving to be effected by the building of waterways was not quite so large as might appear at first sight, as much water-borne traffic would have to use the railways before reaching, and after leaving, the waterway, and that would involve the comparatively heavy expense of transfer from water to rail. For example, it said that a certain kind of low-value freight, shipped by water a distance of 225 miles, would cost 0.412 cent per ton-

* Sympher: *Die Wirthschaftliche Bedeutung des Rhein-Elbe Kanals*; or *Die Wasserwirthschaftliche Vorlage*; or *Wasserwirthschaftliche Vorarbeiten*.

mile. But should that freight have to go five miles by rail in order to reach the water, the preliminary rail-haul, together with the cost of transfer, would raise the average cost on the whole haul, by rail and by water, from 0.412 cent to 0.488 cent. Should the freight have to go, in addition, ten miles by rail after leaving the water, the average cost per ton-mile would be raised to 0.609 cent. And the Government added that the bulky freight leaving and entering the Ruhr district would have to use the railways at the beginning, as well as at the end, of its journey.

A small body of men of information and standing opposed the canal bills, on the ground that a modern railway could cut under any rates that 600-ton vessels could make. They added that modern railways would have the further merit of extending low rates to the whole of Germany, whereas waterways at best could give low rates to only a limited portion of Germany.

This body of men is well represented in Mr. von Börries, who is a Prussian railway official, as well as one of the editors of the leading encyclopædia * summarizing the technics of railways. The analysis of the statistics led Mr. von Börries to conclude that it cost the Railway Department 0.215 cent per ton-

* *Die Eisenbahn-Technik der Gegenwart*, Vol. III, Pt. II. This publication is edited by Messrs. Blum, Von Börries and Borkhausen.

mile to handle long-distance traffic carried in train-loads of 400 tons. The estimate assumed that the freight in question would contribute its share to maintenance and renewal of roadbed and rolling stock, as well as to the expenses of general administration.

Mr. von Börries also concluded that the actual cash outlay, including maintenance and renewal of rolling stock, involved in handling long-distance traffic in 400-ton train-loads was 0.119 cent per ton-mile. Mr. Sympher, the Government's expert on questions of the cost of moving traffic by water, was of opinion that the average cash outlay involved in moving long-distance barge-load freight upon the 600-ton canal vessels would be 0.104 cent per ton-mile. These figures show conclusively that, if Prussia were to bring its railways to modern standards of efficiency, German trade and industry would have vastly lower rates than it can hope to attain under the use of 600-ton canals.

To the arguments based on these figures the Government made no reasoned reply. It contented itself with the statement that the average cost of handling traffic was 0.346 cent per ton-mile for operating expenses and 0.173 for interest on the capital investment, and that, therefore, the Railway Department could not take any traffic at rates under 0.346 cent. This argument is so erroneous that it is obviously insincere. It is the last refuge of a body of men who are estopped from charging what the traffic will bear.

The Railway Department of autocratic Prussia, the administrative officers of republican France and the government railway officials of socialistic Australasia, all are agreed that the public regulation of railway rates — be it through State ownership or through legislation and administration — means hard and fast railway rates which embody a system that admits of little discretion or appearance of discretion. All are agreed that the conflicts of sectional, trade and class interests, precipitated by the modern competition for the market, are so fierce that no government, and no body of public officials, can step in to regulate them, unless that government, or those officials, can get behind the stone wall of a hard and fast system and reply to all complainants: "Gentlemen, you are complaining of rates that are the machine product of a system established by law, a system that knows no discretion."

CHAPTER V

FRANCE

TURNING from our examination of Germany, with State ownership and management of railways,* to a brief survey of France, with rigorous State regulation of the rates of private railways, we find much the same general conditions—the same lack of full development of the resources of the country, the same abnormal dependence upon waterways and the same unhappy interference of “politics” in the business of transportation.

In France, when a railway company wishes to lower or to raise a rate, it must make application to the Minister of Railways. The Minister transmits a copy of the application to the prefect of the Department in which the railway is located, and the latter, in turn, notifies the local chambers of commerce, who have one month in which to file a reply. Upon the strength of the evidence submitted by the railway, the local chambers of commerce and the

* Our survey of Germany has been confined to Prussia, the most important of the German States. The South German States—Bavaria, Württemberg and Baden—also have government ownership; but, making allowance for industrial and geographical differences, to tell their story would be only to repeat that of Prussia.

prefects, the Railway Advisory Council reports to the Minister of Railways, who grants or denies the application made by the railway company.

Requests from companies having circuitous lines for permission to reduce rates for the purpose of competing with companies having direct lines the Ministry generally rejects. The Government thereby greatly restricts the competition between rival producing and distributing centres for common markets, which is everywhere by far the most powerful force making for the reduction of railway charges. Before the State had assumed the rigorous control over rates that it now exercises, companies having circuitous routes commonly competed with companies having direct routes by means of reduced rates.

In France, as in Germany, what Bentham called "sinister interests" have become a powerful factor in arresting the decline of railway rates and in generally preventing the railways from being conducted on business principles. Some years ago, for example, the representation of the railways in the Railway Advisory Council was diminished in consequence of the popular fear of the railway manager. At the same time, the owners of the canal boats and the river steamers, who were being pressed by the railways, succeeded in increasing their representation upon the Advisory Council. The latter body, under the influence of the canal and river interests, thereupon developed the extraordinary policy of refusing

to grant any request of the railways for permission to reduce rates, unless the proposed rate was at least 20 per cent above the rate in force on the competing waterways. This policy has since acquired practically the force of law.*

In France the scheme of tapering rates is carried much farther than in Germany; and there are, in addition, many special rates made to meet the needs of trade and industry. The *Government Control results in Inelastic Rates* railway rates of France, nevertheless, like those of Germany, are far too inelastic to meet the needs of commerce. If this fact does not appear on the surface, it is because the waterways have afforded a partial relief and because the international trade of France has been for years past practically stationary. Then again, a large part of the exports of France, being luxuries, hold their own in the international market because of the taste and style embodied in them, not because of their comparative cheapness. In the export of ordinary silks and woollens, where cheapness does count, France is steadily losing ground.

In France as in Germany, again, the general level of prices has fallen more rapidly than railway charges have declined; and, judged by American standards,

* *Dictionnaire du Commerce : Navigation Intérieure*; M. Ives Guyot, late Minister of Public Works, M. G. Michel and M. P. Leroy-Beaulieu, in current issues of *L'Économiste Français*; M. V. De Lespinats, ancien maître de forges, in *Protestation contre l'urgence et le classement du Canal de la Meuse à Longwy et à l'Escaut*; and M. Ives Guyot: *Les voies navigables et le programme Baudin*.

the railways have done comparatively little toward enabling trade and industry to adjust themselves to the falling prices.* This inelasticity of railway rates, with the comparative inability of the railways to aid in making adjustment to new conditions, showed itself especially in 1883-86, when French trade and industry were suffering from the effects of the financial crisis of 1883 and the French wine industry was being laid low by the ravages of the phylloxera. In this critical period the railways were not given a free hand to adjust their rates to the new conditions, and consequently large quantities of long-distance and low-value traffic, unable to continue to pay the charges they had paid in prosperity, went to the waterways to find the relief that the railways could not give. To such an extent did this movement take place, that the average receipts per

* A. W. Flux: *Price Movements in the Foreign Trade of France*, in *Journal of Royal Statistical Society*, September, 1900; and C. Colson: *Transports et Tarifs*.

LEVEL OF PRICES

	IMPORTS	EXPORTS	AVERAGE RECEIPTS PER TON-MILE
1879-81	100	100	100
1879-83	93	97	97
1879-86	86	89	100
1879-87	81	88	98
1879-90	85	92	92
1879-97	71	81	85

M. Colson states that in the fifteen years ending with 1896 the average receipts per ton-mile upon the waterways fell from 7 mills to 8.3 mills, to 3.5 mills to 4.2 mills.

ton-mile upon the French railways actually rose from 1.587 cents in 1883 to 1.645 cents in 1886. In the period from 1881 to 1886 the freight traffic of the railways fell off 13 per cent, whereas the traffic upon the waterways increased 6 per cent.*

Since 1881 the waterways have been gaining steadily upon the railways, having increased their proportion of the total traffic from 16.8 per cent in 1881 to 24.1 per cent in 1897. In 1898 the density of traffic on the railways was 397,000 ton-miles per mile;† upon the waterways it was 373,000 ton-miles per mile.‡ The total length of navigable waterways was 7700 miles; and but a little less than half of this (3750 miles) carried 95 per cent of the total waterway traffic, with a traffic density of 729,000 ton-miles per mile.§ This was a density of traffic about double that of the average French railway system, and equal to that of the Railway du Nord, which has a much heavier traffic

*Waterways gain
on Railways*

* C. Colson: *Transports et Tarifs*.

† Railway mileage, 27,500 miles.

‡ *Album de Statistique Graphique de 1897-99*.

COMPOSITION OF THE TRAFFIC UPON THE WATERWAYS

	PER CENT
Building materials	32.9
Coal and coke	28.3
Manures	5.4
Grains and provisions	13.7
Lumber and wood	7.0
Miscellaneous	12.7
	100.

§ *Album de Statistique Graphique de 1897-99*; and C. Colson: *Transports et Tarifs*.

than any other railway in the country.* This extraordinary density of traffic was obtained on a system of waterways upon which the typical vessel is the Flemish pinnace, a four-cornered canal boat of a capacity of 300 tons, drawing 71 inches of water, towed by horses and making, on an average, five round trips a year.†

Upon the canals of the north and east of France, where the traffic is very heavy, coal, coke, ores, pig iron and building materials are carried for 3.3 mills per ton-mile to 4.15 mills per ton-mile. On long hauls — 250 to 500 miles — the freight charges on ores fall to 2.5 mills and 2.2 mills; and to avoid making the return journey empty canal boats will take long-distance freight at 1.94 mills per ton-mile.‡ Upon the Seine, between Paris and Rouen, the charges on up-stream freight vary from 2.8 mills to 5 mills, while those on down-stream freight vary from 2.2 to 3.6 mills. Upon the Rhone, on the other hand, where the current is swift and full of eddies, freight charges do not fall below 7 mills, while they may rise to 1.7 cents per ton-mile.

In disputing the relative merits of waterways and railways, French Ministers and legislators content themselves with citing the foregoing figures. They

* Length, 2330 miles.

† Ives Guyot : *Les voies navigables et le programme Baudin*.

‡ C. Colson : *Transports et Tarifs*; and V. De Lespinats : *Protestation contre l'urgence et le classement du Canal de la Meuse à Longwy et à l'Escaut*.

overlook the fact that the cost of maintaining the canals—borne by the taxpayer—amounts to 1.16 *River and Canal* mills per ton-mile of freight carried, *Traffic burden the* and that the cost of maintaining the *Taxpayer* rivers is 1.58 mills per ton-mile of freight carried. They also ignore the fact that the interest on the capital invested in canals and in river improvements amounts to 3 mills per ton-mile of freight carried upon the waterways.* When the cost of maintaining the waterways, together with the interest on the capital invested in the waterways, is added to the charges collected by the owners of the river boats and canal boats, the lowest charge for the carriage of freight by water in France is raised from 1.94 mills to 6.10 mills per ton-mile. If the cost of maintenance alone is added to the direct transportation charge, the lowest total charge for the carriage of freight upon the waterways is 3.10 mills per ton-mile, which is but little below the lowest rate in force upon the French railways, namely, 3.5 mills.

In 1900, the average receipts per ton-mile of freight carried by the railways ranged from 1.12 cents upon the Railway du Nord to 1.45 cents upon the Railway de l'Ouest. The rates on iron and steel castings vary from 7 mills per ton-mile to 1.11 cents; and the rates on ores go down to 3.5 and 4.6 mills.

The foregoing rates are made by railways employing freight cars with a capacity of 10 tons, loaded on

* F. Schumacher, in *Archiv fuer Eisenbahnwesen*, 1899, Heft 3.

an average to 3 tons, attaining a maximum train-load of 600 tons and an average train-load that varies from 65 tons for the Railway de l'Ouest to 150 tons for the Railway Paris-Lyon-Méditerranée.

M. de Lespinats, a well-known manufacturer of steel and iron, in a report to the Chamber of Commerce of Nancy* recently analyzed the accounts of the Railway de l'Est, and showed that this road could haul freight in 300-ton train-loads at a cost of 2.48 mills per ton-mile, and in 500-ton train-loads and 20-ton cars at a cost of 1.55 mills. M. de Lespinats assumed that the freight in question would pay its share of the sum total of the operating expenses of the railway, and would in addition pay interest and sinking fund charges upon the rolling stock employed. Adding such charges to the costs as given above, he was of the opinion that the French railways were able to carry, and ought to carry, bulky and low-value freight, delivered in 300-ton lots, at the rate of 4.2 to 4.8 mills per ton-mile for the first 125 miles, and at 2.8 mills to 3.3 mills for every mile over 125 miles. These rates, he held, were necessary to satisfy the needs of agriculture and industry; and, moreover, they were lower than the rates upon the canals projected by the Government, upon which it was proposed to charge a toll of 1.7 mills per ton-mile on building materials, coal and ores, and a toll of 2.2 mills on

* *Protestation contre l'urgence et le classement du Canal de la Meuse.*

steel and iron. M. de Lespinats concluded with the statement that it was obviously out of the question for the State to approve the rates he had suggested, unless it should decide to break with its past policy of insisting that the railway rates be kept at least 20 per cent above the rates on competing waterways.

The Government shortly afterward carried its proposal to spend some 500,000,000 francs on building additional canals, which were to be navigated by 300-ton vessels paying tolls of 1.7 mills and 2.2 mills per ton-mile of freight carried. While these proposals were still before the Chamber of Deputies, M. Jozon, Director of Navigation, protested before the Railway Advisory Council against certain requests of the railways to be allowed to lower their rates. M. Jozon said that the Government's canal scheme was based on the supposition that the freight to be carried on the proposed canals would be able to pay certain tolls. If the railways should be allowed to lower rates, the Government's calculations would be upset.*

The territory north of the Seine and the Marne rivers is the seat of the steel and iron and cotton and wool spinning industries. It is, in fact, the great manufacturing region of France. At present the railways serving this region, the Railway du Nord and the Railway de l'Est, carry less than one-half

* Yves Guyot: *Les voies navigables et le programme Baudin*.

of the traffic. Were they allowed to drive out of the field the 300-ton canal boats, they could much more than double their present traffic, for new facilities create new business. With such an increase in the volume of traffic, it would be possible for them, without further economies, to lower enormously their average receipts, which are, respectively, 1.2 cents and 1.28 cents per ton-mile of freight carried. Any such increase in the volume of traffic would, moreover, justify these roads in bringing their property up to something like American standards of technical efficiency; and that increased efficiency, in turn, would ultimately lower the general level of charges to a point such as has never been, and never can be, enjoyed by French industry on a 300-ton canal-boat basis. Finally, freedom for these roads to make rates in competition with the waterways would cause a general level of low railway rates to be diffused over the whole country, and would do away with the extraordinary discrimination which now exists in France in favor of districts supplied with waterways and against those supplied with railways alone.*

* C. Colson: *Transports et Tarifs*.

CHAPTER VI

AUSTRIA-HUNGARY AND THE DANUBIAN PROVINCES

IN the period from 1860 to 1880, the merchants of Stettin, at the mouth of the Oder, exported to England large quantities of grain drawn from Bohemia, Moravia, Galicia, Hungary, Rumania and even from the territory lying to the north of Odessa, in Russia. In 1867, for example, the Board of Trade of Stettin publicly thanked the Austrian and Galician railways for the intelligent and energetic support extended to the merchants of Stettin, who were endeavoring to expand their operations in eastern Europe. As late as 1877 Stettin exported to England some 25,000 tons of Rumanian wheat. But in the four years ending with 1901, the railways carried into Stettin from Russia, Rumania, Galicia, Hungary, Bohemia and Austria no wheat, no rye and only 486 tons of Indian corn.

This complete destruction of Stettin's export trade in grain raised in eastern Europe affords a dramatic illustration of the destructive effect upon commerce of the refusal of the State railway systems of the several European countries to coöperate with one another

for the purpose of making such through rates on freight as would promote the free exchange of goods. On the other hand, this refusal of the several European State railway systems to coöperate with one another is one of the most characteristic outcomes of the State ownership and the State management of the railways. It seems to be impossible for a State that is engaged in fostering industries by means of protection to refrain from regulating the railway rates with a view to supplementing the protective tariff. It is not a mere coincidence that Great Britain, the great exponent of free trade, should be the only country of Europe that has steadfastly refused to regulate railway rates with a view to checking imports.

In 1879 Prussia entered upon the policy of State ownership, and in 1880 the Prussian Government broke off the arrangements under which the railways of Prussia had coöperated with those of Austria and Hungary, for the purpose of making such rates as would enable the grain of the Danubian countries to go to England by rail and sea, by way of Stettin and Hamburg. The Austro-Hungarian railways tried to save themselves by transferring the grain of eastern Europe to the Elbe at Laube-Tetschen and Ausig, the head of navigation on the Elbe for vessels carrying average loads of 300 to 400 tons. But the competition of the American grain in Liverpool soon

became so keen that the grain of eastern Europe became unable to bear the burden of the transfer from rail to river and of the relatively high charge made for the carriage by rail from the Danubian countries to the head of navigation on the Elbe. This charge for the haul by rail became relatively higher each year; for, as will appear shortly, the check upon the development of traffic resulting from State ownership and State regulation prevented the Austro-Hungarian railways from developing enough traffic to justify railways of the American type and of American efficiency. The railway charges on the grain of eastern Europe destined for England by way of the Elbe remained, therefore, comparatively stationary; whereas those on American grain destined for England declined very rapidly, with the result that the grain of eastern Europe had to find a new outlet to England and western Europe. It turned eastward, sought the Black Sea by way of the Danube, and then went by way of the Mediterranean Sea and the Atlantic Ocean to England, Belgium, Holland and Germany. At present the grain of western Rumania goes by rail to the Danube, thence by river to the Black Sea, thence in vessels of 1000 to 3500 tons' capacity to Rotterdam or Hamburg, from which places it goes by river to Mannheim on the Rhine or to Magdeburg and Dresden on the Elbe.

Grain, beef, pork, dairy products, fruits, vegetables and timber are the staple products of the Danubian

countries. But all of these compete with the products of the soil owned and tilled by the landed aristocracy of Prussia, which dictates the policy of the Prussian Government. Therefore, the Prussian Railway Department has thus far steadily refused to coöperate with the Austro-Hungarian railways for the purpose of promoting the importation into Germany and western Europe of the staple products of eastern Europe.

The Austrian State railways have been comparatively moderate in the practice of discriminating against imports from Germany, by making a *Austrian Practice* higher charge for the carriage of im-
liberalized by ported articles than for the carriage
Competition of of articles of domestic manufacture.
Private Com-
panies

This is due mainly to the fact that about 42 per cent of the Austrian railways are still operated by companies, which, of course, take business wherever they can get it and ask no questions as to whether that business is of domestic or of foreign origin. And the competition from the companies forces the State, under penalty of losing traffic, to adopt a more liberal policy than it would otherwise pursue. It is, however, becoming increasingly difficult for the State to adhere to its somewhat liberal practices, partly because the practices of the Prussian Railway Department are becoming more and more irritating, thus arousing the Austrians to demand retaliatory measures, and partly

because of the tremendous wave of protectionist sentiment that is sweeping over all Europe.

In Hungary the State owns or operates 82 per cent of the railways, and it pursues with great energy the policy of regulating railway rates in such manner as to force exports and to check imports. In fact, the Hungarian Government has done on a large scale what so many of our own State Railroad Commissions would love to do and have done on a petty scale. The Hungarian Railway Department has, in effect, established a customs barrier against Austria, by making heavy discriminations in favor of Hungarian manufactures and against Austrian manufactures. And at times, when the relations between Austria and Hungary have been more than usually strained, German manufactures imported into Hungary have enjoyed more favorable rates than Austrian manufactures.

Early in the eighties, Germany adopted stringent measures against the importation of cattle and hogs from Austria-Hungary, reducing the imports of cattle from 38,000,000 florins in 1877 to 4,000,000 in 1881. Germany professed that it desired merely to protect itself against the importation, by way of Austria-Hungary, of epidemic diseases from Rumania and southwestern Russia; but as a matter of fact, Germany was guided largely by the desire to protect its cattle and hog interests. Austria-Hungary followed by prohibiting the importation

of cattle and hogs from Rumania, at first in the hope that Germany would remove the restrictions upon imports from Austria-Hungary, and later from a desire to protect the cattle and hog interests of Hungary against competition from Rumania. Under this prohibition the Rumanian exports of cattle and hogs fell from 20,000,000 francs in 1879 to 2,000,000 in 1889. In fact, the cattle industry of Rumania was ruined by the action of Austria-Hungary. By way of retaliation, Rumania raised the duties upon articles imported from Austria-Hungary, and thus reduced the proportion borne by the imports from Austria-Hungary into Rumania to the total imports into Rumania from 48.5 per cent in the period from 1876 to 1885 to 17.1 per cent in 1887 and 14.5 per cent in 1890. Retaliatory measures taken by Austria-Hungary, in turn, reduced the proportion borne by Rumania's exports to Austria-Hungary to the total of Rumania's exports from 35 per cent in the years 1876-85 to 8 per cent in 1887, and 3.25 per cent in 1890.

The trade with Rumania which Austria-Hungary lost fell to Great Britain and to Germany. That meant that the tariff war between Austria-Hungary and Rumania deprived the railways connecting those countries of great volumes of traffic. Great Britain trades with Rumania exclusively by way of the Mediterranean, the Black Sea and the Danube, and Germany does so in the main.

In the later eighties, Germany made great efforts to reach the markets on the Danube and in the Balkan peninsula by way of the overland railways.

Vain Efforts of Germany to reach Eastern Markets by Rail But its efforts were defeated by Hungary, which refused to make concessions in rates on any German

manufactures that competed with the products of the infant industries that Hungary was fostering. Germany then turned to the Danube and sought to get concessions from the steamship companies running from Passau, in Bavaria, and from Vienna to the mouth of the Danube. But here again it was checkmated by the Hungarian statesmen, who had various means of intimidating the Austrian steamship companies. One of them was the toll charged upon freight passing through the canal at the Iron Gate. Another means was the relation existing between the Austrian Government and the leading steamship company on the Danube, by reason of the subsidy paid the latter by the Austrian Government. The Hungarian statesmen gave the Austrian Government to understand that it could promote friendly relations between Austria and Hungary by intimating to its *protégé*, the Danube Steamship Company, that it must not go too far in promoting German trade with the Danubian countries and the Balkan peninsula.

In due time Germany realized the hopelessness of its efforts to develop a transcontinental traffic by

rail; and, in 1890, it established the so-called "Levant tariffs." From all parts of Germany low railway rates are made to Hamburg and Rotterdam on goods destined for eastern Europe by steamer. From the Levant ports the goods are sent inland by rail or by river.

In 1869 Baron Hirsch, the Vienna financier, obtained franchises for the "*Société Impériale des chemins de fer Ottomans*," which was to open up the interior of the Balkan peninsula from the ports of Constantinople and Saloniki, and was to connect those cities with the railways of western Europe. Immediately British and Austrian diplomacy set to work in secret to defeat the scheme to connect western Europe by rail with Constantinople. Great Britain and Austria were averse to having Germany and Belgium obtain an outlet by rail to the Levant for their manufactures. Not until 1888 was the through line, Vienna-Saloniki-Constantinople, opened to traffic. As late as 1892 we find Austrian publicists who aspired to show Austria the way to commercial and industrial greatness deploring the fact that Austrian capital and Austrian brains should have been put to the base purpose of promoting German trade with the Balkan peninsula.

For a number of years the Turkish Government refused to give Servia access to the Ægean Sea by way of Saloniki, by refusing to connect the Turkish railway running northwestward from Saloniki with

the Servian railway running from Nish to Vranje. When the connection was finally made, in 1888, the German Government immediately appointed to the office of consul at Nish a man thoroughly familiar with the trade routes to the East, who was to watch that England and France should get no better rates into Servia by way of Saloniki than Germany could get by way of rail to the Danube, thence by way of the Danube to Belgrade, and thence by rail into the interior of Servia. The Servian Government is, however, disinclined to coöperate with Germany in letting the overland rail and river route hold its own against the ocean and rail route; and the trade that formerly went to Servia by way of the Danube is shifting to the ocean route. The advantage of the latter route the French consul at Belgrade, M. Millet, set forth in telling manner in 1889. He said that the French merchant who shipped into Servia by way of Saloniki had to secure the coöperation only of the French railways, the ocean steamers and the Servian railways. But the French merchant who shipped into Servia by the overland route had to secure the coöperation of some twenty different transportation agencies, each one of which was acting constantly on the supposition that its interests were in conflict with the interests of all the others.

When the first steps were taken to connect by rail the industrial centres of western Europe and the agricultural regions of southeastern Europe, it was

predicted in countless speeches and articles in all the languages of Europe that a great transcontinental traffic would spring up, consisting of manufactured commodities moving eastward and of raw materials and food-stuffs moving westward. But those predictions have come to naught. The reason is that for decades past each one of the countries concerned has been fighting every other one, on the supposition that its interests conflicted with the interests of every other one of the countries. Nowhere has there appeared the slightest tendency to unite into an economic unit the industrial West and the agricultural East. The result has been the practical failure to develop through traffic between the East and the West. What should be a transcontinental railway is simply a number of local railways, which are physically connected, but exchange with one another comparatively little long-distance or through traffic. Each local link has its local traffic, and little more. On the other hand, the efficient, modern railway, which hauls freight in train-loads rising to 3000 tons, can exist only where there are enormous quantities of freight moving over long distances. The failure to develop traffic of that kind to be moved by rail between western and eastern Europe is the reason why the railways of Austria-Hungary and of the Danubian countries, as well as those of the Balkan peninsula, have remained technically where they

National Jealousies prevent Railway Traffic with the East

were in 1870. But the 10-ton car and the railway with train-loads of 200 and 300 tons, even when used as mere feeders to the waterways, are in 1905 no longer efficient agencies of transportation. They no longer give the agricultural products of eastern Europe a fair chance to compete in western Europe with the agricultural products of the United States; and this means that eastern Europe is not developing as fast as it might develop, and that it does not consume anything like the amount of the products turned out by the industries of western Europe that it might be made to use.

It is true that the peoples of the Balkan peninsula and of the Danubian provinces, as the result of centuries of misrule, still are miserably poor, suspicious of every innovation and all but hopelessly apathetic. But, over and over, one thing has been shown—that there is a way of overcoming the inertia and the apathy resulting from long-continued oppression, and that is to give the people in question “the chance to make a dollar.” Industry and trade are the great civilizing agencies, and nothing promotes them so effectively as do modern means of transportation. The countries of Europe have, therefore, inflicted upon themselves immeasurable harm, by pursuing a policy which has reduced their railways to mere feeders to the waterways and has prevented them from becoming modern and efficient means of transportation.

Rumania, Bulgaria and Servia, countries with a population of some 12,000,000 and with vast agricultural resources, at one time looked forward to gaining an overland outlet by rail to western Europe. At present they build their railways entirely with the view of reaching the Black Sea or the Ægean Sea; but the Danube still remains the great highway to the Black Sea, the railways being, in the main, feeders to that river. About 70 per cent of the exports and imports of these countries go out and come in by way of the Black Sea ports; and about 70 per cent of that proportion, in turn, goes and comes by way of the Danube, rather than by way of the railways leading inland from the ports of Burgas, Varna, Constanta, Braila and Galaz.

Upon the Danube, in Rumania, a waterway of 590 miles, a 600- to 700-horse-power steamer will tow up-stream, at the rate of 3 miles an hour, 8 barges carrying 5200 long tons of paying freight. The published charges for merchandise carried up-stream range from 0.407 cent per short-ton mile for a distance of 200 miles to 0.349 cent for a distance of 480 miles. For the carriage of bulky goods, delivered in barge-load lots, the charges range from 0.235 cent per short-ton mile for distances under 350 miles to 0.176 cent for distances exceeding 625 miles. On grain carried down-stream, the published charges range from 0.115 cent to 0.173 cent; and, at times, the charges actually made have fallen to 0.059 cent per

ton-mile. The lowest published rate is 0.1 cent, which applies to building stone carried down-stream.

The bulk of the Rumanian wheat and corn is raised west of longitude 25 degrees 30 minutes; and that part of it which is exported finds its principal market in the interior of Germany, going as far inland as Mannheim on the Rhine and Magdeburg on the Elbe. Turn-Magurele, which may be taken as the "centre of gravity" of the Rumanian wheat and corn district, is 1440 miles from Magdeburg, by way of the Danube, the proposed Danube-Moldau-Elbe canal and the Elbe. A modern railway should have no difficulty in carrying wheat and corn that distance for 0.33 cent per gross ton-mile, or \$4.75 a gross ton. In the United States, millions of bushels of wheat for export have moved to the seaboard at less than 0.15 cent per short-ton mile, and probably the average receipts for grain moving to the Atlantic seaboard for export are nearer 0.2 cent than 0.3 cent per short-ton mile.

Grain raised in western Rumania and shipped to Magdeburg goes by rail to the Danube, thence an average distance of 475 miles by river to the Black Sea, thence a distance of 4365 miles by sea to Hamburg, and thence 185 miles by the river Elbe. The total charge for the shipment is \$6.66 a long ton, or \$0.50 in excess of the present cost (May, 1903) of moving a long ton of wheat or flour from

Cost to the Rumanian Farmer of Deficient Railway Service

Duluth, Minn., to Magdeburg on the Elbe. Could the cost of the three transshipments from railway car to river vessel, from river vessel to ocean vessel and from ocean vessel back to river vessel be eliminated, a saving of \$1.30 a ton could be effected. Could wheat be carried overland for from 0.22 cent to 0.33 cent per long-ton mile, the saving effected would be \$3.50 to \$1.90 a ton. In 1902 those last sums would have represented respectively 14 per cent and 7 per cent of the average price of wheat in the western Rumanian Danube markets. In other words, had the Rumanian farmer in 1902 been served by modern railways, the wheat which he raised would have brought him upward of 7 per cent to 14 per cent more than it in fact brought him. That, in turn, would have meant an increase in the purchasing power of the Rumanian farmer and a greater export of German manufactures to Rumania.

When Austria-Hungary forbade not only the import, but even the transit, of Rumanian cattle and hogs, Rumania tried to help itself by shipping cattle and hogs to western Europe by way of the Black Sea and the Mediterranean. But the experiment failed, because the animals lost too much weight in the course of the voyage. The result was that the export of cattle fell from 30,600 head in 1879 to 8900 head in 1900, and that of hogs from 153,600 in 1879 to 2300 in 1900.

The loss of the export market so discouraged the

Rumanian farmer that he discontinued his efforts to improve the breed of his cattle and hogs, and that, in turn, became one of the main obstacles to the building up of an export trade in slaughtered cattle and hogs. A further obstacle was found in the refusal of the Prussian Railway Department to coöperate with Rumanian packers of beef and hogs in giving Rumanian beef and pork access to German markets. In 1899, for example, a packer at Jassy, in northern Moldavia, 30 hours by rail from Berlin, opened negotiations with the Prussian Railway Department for rates on meat from Jassy to Berlin. The packer was of opinion that he would be able to market in Berlin 30 tons of meat a day. But the Prussian landowners compelled the Railway Department to drop the negotiations.

Rumania, Servia and Bulgaria have extensive areas of excellent grazing lands, and by soil and climate these countries are even better fitted for raising corn than for raising wheat. The farmers of these countries could greatly improve their condition, and they would become much better customers of the manufacturing countries of western Europe, particularly of Germany, were it practicable for them to turn more to the raising of corn, cattle and hogs for the markets of western Europe. But at present they cannot imitate the example of the farmer of the American corn belt, and seek relief from the falling price of wheat by raising corn and feeding it to cattle and hogs.

The ocean steamers have not succeeded in making rates that would force a market in western Europe for the packing-house products of the Danubian countries. And the only markets open to the live cattle and hogs of those countries are the markets of Russia, a country with no city population to speak of, as well as a country with an exceedingly low standard of living.

The absence of efficient and modern transcontinental railway facilities is also illustrated in an instructive manner by the history of the Carpathian oil regions of Galicia and Rumania, *Failure to develop the Carpathian Oil Trade* "the natural petroleum reservoir of Europe." The product of these oil fields increased from 153,000 long tons in 1893 to 722,000 tons in 1901. The primary need of the industry is such access to the world's markets as will enable the region to dispose of oil enough to justify production on a large scale and in accordance with modern methods. Thus far the railways of Germany have failed to coöperate with the Carpathian oil industry to give the product of the latter a reasonable access to Germany. As late as 1900 the Chamber of Commerce of Posen, a river port on the Oder, near the Galician frontier, stated, in a memorial to the Prussian Minister of Railways, that one might say, without exaggerating, that the Galician oil fields were farther from Germany than were those of the United States.

Although the output of the Carpathian oil fields increased from 153,000 tons in 1893 to 722,000 tons in 1901, the Carpathian oil carried by rail into Germany rose only from 5000 tons in 1893 to 10,000 tons in 1895, and 15,000 tons in 1901.

In 1898 the Rumanian oil producers sought a new outlet to Germany by shipping their oil by rail to Giurgevo, on the Danube, thence by river in tank vessels, a distance of 1166 miles, to Regensburg, in Bavaria, and thence by rail into southern Germany. The transit from Giurgevo to Regensburg takes 42 days, and involves the passage through the Iron Gate canal, for which passage the Hungarian Government collects a toll, which, in 1901, averaged 38 cents a ton on all the freight passing through. Nevertheless, the new rail and river route offered such advantages over the all-rail route that the shipments over it rose from 2550 tons in 1898 to 9300 in 1900. In the following year, 1901, 60 per cent of the oil shipped from Rumania into Germany took the rail and river route. Further evidence of the way in which the German market will respond to reductions in the cost of transportation is found in the fact that, while the imports of petroleum into Bavaria from Baku, Russia, by way of the Black Sea and the Mediterranean to Trieste, and thence inland by rail, remained stationary at 4000 tons a year from 1889 to 1900, the imports into Bavaria from Rumania by way of the Danube rose from 27 tons in 1897 to 9300 tons in 1900.

In Hungary the Danube affords very cheap transportation for a distance of 500 miles — that is, from Gonyö (halfway between Vienna and Budapest) to the Rumanian frontier. In connection with the lower reaches of the Drave, Save and Theiss, it affords one of the principal highways, if not the principal one, between southeastern Hungary and Budapest and Vienna. Above Gonyö the current and the shallowness of the stream raise the cost of transportation to from $2\frac{1}{2}$ times to 4 times the cost of transportation below Gonyö. For that reason there is comparatively little traffic upon the Danube above Gonyö and Vienna.

In 1900 the published charges for carrying grain from Szegedin down the river Theiss and up the Danube to Budapest, a distance of 398 miles, ranged from 0.20 cent per short-ton mile to 0.394 cent, according to the season of the year. The charges from Szegedin to Vienna ranged from 0.30 cent to 0.40 cent; and from Szegedin to Regensburg in Bavaria, a distance of 864 miles, they ranged from 0.482 cent to 0.523 cent. From Widdin, in Rumania, and below the Iron Gate, the charges to Budapest, a distance of 553 miles, ranged from 0.40 cent to 0.462 cent; and to Regensburg, a distance of 1020 miles, they ranged from 0.476 cent to 0.50 cent per ton-mile.

At the foregoing rates there were carried into Bavaria, from Hungary and Rumania, in the three

years 1898-1900, 73,000 tons of wheat by river, as against 7000 tons of wheat by rail, and 47,000 tons of flour by river, as against 3000 tons by rail. Only in the carriage of barley, an article in which the international competition is not so keen as it is in wheat and flour, did the railways come anywhere near to holding their own against the Danube. There were carried into Bavaria from Hungary and Rumania, by river, 168,000 tons of barley as against 177,000 tons by rail.

In 1900 the published charges for the carriage of timber down the rivers Save, Drave and Theiss, and up the river Danube to Budapest, ranged from 0.20 cent per short-ton mile to 0.373 cent; to Vienna, the charges ranged from 0.273 cent to 0.441 cent; and to Regensburg, they ranged from 0.391 cent to 0.479 cent. At these charges there were carried into Bavaria from Hungary, in 1898 to 1900, 118,000 tons of timber by way of the Danube and only 51,000 tons by rail.

In the four years 1898-1901 the rivers of Hungary navigable by steam vessels, 1934 miles in length, had an average traffic density of 389,000 long-ton miles, which was slightly more than the traffic density of the railways of that part of the United States lying west of the Missouri and Mississippi rivers. In these same years the Hungarian railways, 16,956 miles in length, had a traffic density of 305,000 long-ton miles. The average length of haul for freight

was 218 miles upon the rivers and 80 miles upon the railways. The average receipts per ton-mile of freight carried, in 1896-1900, were 0.467 cent upon the rivers and 1.079 cents upon the railways.

Upon the 646 miles of the Danube which are within the boundaries of Hungary the traffic density is between 600,000 and 800,000 long-ton miles. But, *Hungarian Waterways vainly compete with American Railways* although the Danube constitutes the backbone of the transportation system for the traffic originating and ending within the boundaries of Hungary, it does not afford an efficient means of communicating with the outside world. Neither the Rhine nor the Elbe, the great highways of western Europe, connect with the Danube, the highway of central and eastern Europe. On the other hand, the keenness of the competition in the international markets is making it more and more difficult to use transportation routes involving frequent transfers from river to railway and from railway to river. As a consequence, Hungary finds it more and more difficult to meet, in the markets of western Europe, the competition of the United States, Russia and the Danubian kingdoms. It was apprehension from this fact that recently led the former minister of railways, Mr. Hieronymi, to begin an important discussion of the transportation situation in Hungary with the statement that the shipment of wheat from Budapest in Hungary to Prague in Bohemia cost

as much as the shipment from Chicago to Liverpool. The distance between Budapest and Prague is 175 miles by air line and 483 miles by the Danube, the proposed Elbe-Moldau-Danube canal and the Elbe.

Hungarian and Galician wheat and flour have ceded the German market to the United States and Russia. Hungary's surplus wheat is exported as flour to England, by rail to Fiume and thence by sea. It is true that with the growth of population in Austria and Hungary the grain available for export from Hungary was greatly restricted. But that fact does not account entirely for the falling off in the Hungarian exports to Germany of wheat, flour and corn. Nor does it account at all for the failure to make Budapest a great milling centre for Continental Europe, a great primary wheat market for the grain raised in the Danubian kingdoms and southwestern Russia and a great beef and pork packing centre for supplying western Europe with the products of southeastern Europe. Those failures are due entirely to the success with which the several European countries have oppressed each other's industries, by means of customs barriers and the regulation of railway rates; and the enlightened opinion of Europe is coming to recognize that the latter engine of oppression has been by no means the less effective of the two.

The marketing of timber, like that of grain, has

also become a question mainly of transportation charges. That is why, with the increase from 718,000 long tons in 1890 to 1,643,000 tons in 1900, in the importation into Germany of sawed timber for building purposes, the proportion obtained from the United States increased from 5 per cent in 1890 to 16 per cent in 1900; while the proportion obtained from Austria-Hungary increased only from 27 per cent to 30 per cent, and that from Russia fell from 22 per cent to 18 per cent.

Although Bohemia, with its extended tracts of softwood timber, lies at the head of the Elbe and immediately southwest of Saxony, Bohemian timber controls the markets in the so-called Elbe territory only as far down the Elbe as Magdeburg. Below that city the markets are in the hands of the dealers who import timber from Russia, Sweden and the United States. Even into southern Germany, Austrian timber and Bohemian timber penetrate little farther than Bavaria.

The softwood timber of the Carpathian Mountains and of Transylvania to no small extent goes to Germany by way of Odessa and Galatz on the Black Sea. In the six years ending with 1901, 1,025,000 long tons, or 35 per cent, of the softwood lumber and timber exported from Austria-Hungary to Germany took this eastward route, entering Germany by way of the Rhine and the Elbe. Portions of that timber went as far inland as Bavaria, Saxony and Silesia.

The oak of Hungary, Croatia and Slavonia, which is exported by way of Fiume, on the Adriatic, competes freely with the American oak in Italy. It finds it increasingly difficult to compete in France; it competes scarcely at all in England; it competes not at all in the so-called Elbe territory of Germany, nor in middle Germany; and it competes only to a moderate extent in southern Germany, which it reaches by way of Fiume, Rotterdam and the Rhine. And yet the Hungarian oak, by reason of its "mildness" and its large percentage of tannin, is so much better adapted to the storage of wine and liquor, that it brings in the markets of Europe from 10 per cent to 20 per cent more than does the American oak.

In the period 1895-1900 the United Kingdom obtained from Austria-Hungary 10 per cent of its imports of hewn oak and 8 per cent of its imports of oak staves; in that same period it obtained from the United States 62 per cent of its imports of hewn oak and 33 per cent of its oak staves. In the period 1890-1900 the percentage of the German imports of oak for cooperage purposes obtained from Austria-Hungary fell from 90 per cent of the total imports to 61 per cent, while the percentage of the imports from America rose from 5 per cent to 31 per cent.

Not many years ago Bosnia and Slavonia, in south-eastern Hungary, were important sources of supply of the prunes consumed in the United States. Today California prunes have all but displaced Hun-

garian prunes in the markets of England, and they are crowding even the French prunes. In 1894 England obtained from France 85 per cent of its imports of prunes, and from the United States none; in 1900 it obtained from France 62 per cent and from the United States 31 per cent. In 1894 England obtained from Austria-Hungary 30 per cent of its imports of dried or preserved plums and from the United States 19 per cent. In 1899 it obtained from Austria-Hungary 18 per cent and from the United States 40 per cent.

Prunes are one of the principal products, if not the main product, of Servian agriculture. They are unnecessarily handicapped in the struggle for the markets of western Europe, particularly Germany, because burdened with the heavy transportation charges arising out of the fact that they go to market from the banks of the Danube to Saloniki, on the Ægean Sea, and thence to Rotterdam and Hamburg.

The soil and climate of Austria-Hungary are admirably adapted to the raising of apples and other fruits, as well as vegetables, that could be exported to Germany fresh, dried or canned. But the market would have to be forced — that is, the prices would have to be lowered so that the articles in question could become articles of diet for the masses, being at present consumed mainly by the classes. The effective forcing of the market would,

*Farmers and
Consumers suffer
from Lack of Pro-
gressive Railways*

in turn, require that the fruits in question be handled in accordance with modern commercial and transportation methods. The railways would have to coöperate with the merchants to organize the industry on a large scale production basis. At present there is practically no coöperation of that kind. Of the 62,000 tons of fresh and dried fruits sent from Bohemia to Berlin in the three years ending with 1900, not less than 61 per cent went down the Elbe and up the Havel and the Spree canal to Berlin, mainly in skiffs of 50 tons' and 100 tons' capacity. It is needless to say that, under conditions such as these, Europe never will experience that marvellous transformation that the railways effected in the United States when they coöperated with the grower of vegetables and fruits, and with the merchant, to establish the modern truck gardening and fruit industries, and to make the products of these industries articles of diet for the middle classes, and even for the masses.

In the United States the farmer of the East sought relief from the competition of western wheat by turning, wherever possible, to the fruit, vegetable and dairy industries. He had scarcely made the change when he was forced to adjust himself in his new industry to a new and lower level of prices. The railways, by means of refrigerator cars and express trains, brought into his markets the dairy products of the West and the fruits and vegetables of the

South. This competition, ever springing up from the most unexpected quarters, often played havoc with land values and established interests in the East, but it helped to build up the West and the South, and it changed the habits of the American people as to the eating of many kinds of vegetables and fruits.

The agricultural interests of eastern Germany and of Austria-Hungary, as well as the dwellers in the cities of Germany, would be enormously benefited, were the railways of Germany and Austria-Hungary to adopt American methods for giving outlying districts access to the large centres of population. But the conflict of sectional interests and class interests, of which the reader has had so many examples, has thus far prevented the railways from helping themselves, the farmers of the outlying regions and the consumers in the trading and manufacturing centres. From Austria-Hungary, from Silesia and Posen in the East and from Lorraine in the West, one hears the cry for canals that shall enable fruits and vegetables to move to Berlin. And within the city limits of Berlin one can count, and smell, upward of 14,000 cows, kept there to supply the population with milk that the railways are not allowed to bring from a distance.

In the five years ending with 1900, Bohemia and Moravia sent to Hamburg, by way of the railway to Laube-Tetschen on the Elbe, and thence by river,

1,354,000 long tons of sugar, as against less than 1000 tons sent by all-rail route. The distance from Laube-Tetschen to Hamburg is 420 miles, so that the railways lost 114,000,000 ton-miles of traffic a year through their failure to drive the river vessels out of business.

*Traffic which in-
vites Coöperation
of European
States in Railway
Development*

In the five years ending with 1901, Austria-Hungary sent into the so-called Elbe territory of Germany, which includes Berlin and Hamburg, 1,639,000 tons of timber and lumber by river, as against 1,754,000 tons sent by rail. Not less than 82 per cent of the traffic by rail was mere neighborhood traffic — that is, traffic into the kingdom of Saxony. The long-distance traffic in lumber exported from Bohemia almost all went by rail. For example, in the three years ending with 1900, Magdeburg, which is 290 miles from Laube-Tetschen, received 128,000 tons of lumber by river and only 20,000 tons by rail.

In the five years ending with 1900, Bohemia sent into the Elbe territory 19,027,000 tons of coal by rail, as against 9,949,000 sent by river. But here again not less than 83 per cent of the traffic by rail was local traffic to Saxony. To Magdeburg the railways carried in the four years ending with 1901 only 32,000 tons of coal, as against 1,277,000 tons carried thither by river. Of the latter quantity, about 25 per cent to 30 per cent was transferred to the railways at Magdeburg, to be carried to neighboring points.

To Brandenburg and Berlin there were carried from Bohemia in 1901, 395,000 tons of coal by way of the Elbe and the Havel and the Spree canal, as against 164,000 tons sent directly by rail.

In the four years ending with 1901, there were carried down the Elbe across the Bohemian frontier 11,226,000 tons of freight, or 36 per cent of the exports of Austria-Hungary to the so-called German Elbe territory; in that same period there were carried up the Elbe into Bohemia, 1,818,000 tons of freight, or 54 per cent of the exports from the Elbe territory into Austria-Hungary. The traffic was carried in vessels which carried, on an average, from 300 tons to 400 tons of freight; and it involved at least one transfer from river to railway or railway to river. It was traffic in commodities as to which the international competition for the markets, especially the competition between the United States and Europe, each year is becoming keener. It was traffic in which minute differences as to cost of transportation not only affect seriously the profits of the producer and the trader, but even determine whether the commodities shall become the objects of international trade — that is, whether they shall be produced and bought and sold.

It was the increasing competition in the world's markets that recently led the Austrian Parliament to enact measures authorizing the construction of some 1100 miles of canals which will connect the Elbe,

the Danube, the Oder, the Vistula and the Dniester, so that 600-ton vessels shall be able to pass from one to the other. The construction of the canals was authorized on the supposition that it would cost \$375,000,000. In the eighties a similar legislative proposal had been defeated, largely through the efforts of Mr. von Nördling, a former Austrian State railway official. Mr. von Nördling had argued that canals could not render trade and industry the service that railways could render when making their rates on the principle of charging what the traffic would bear. Technically the Austrian expert was right; but he was arguing at a time when State ownership of the railways in Europe was in its infancy, when it had not had a chance to show how it was destined to paralyze the trade and the industry of Europe.

Upon the Elbe and its tributaries the traffic density is 2,405,000 long-ton miles per mile of river, and the average length of haul per ton of freight carried is 275 miles. Upon the Oder the traffic density is 1,029,000 long-ton miles and the average length of haul is 270 miles. Upon the Austrian Danube the traffic density is 300,000 long-ton miles and the average length of haul is little short of 250 miles. Upon the Hungarian Danube the traffic density is between 600,000 and 800,000 long-ton miles and the average haul is 240 miles. Upon the Danube in Rumania the traffic density is almost equal to that on the

Danube in Hungary and the average haul probably is not much under 300 miles. These figures show conclusively that, if one could secure coöperation between the railways of Germany, Austria, Hungary and the Danubian provinces, one would be justified in developing the existing 10-ton car and 200 to 300 ton train-load railways into railways of the American type. Such railways would bring into existence an enormous traffic that at present cannot come into being; they would throw out branch lines into regions that never can be reached by canals; and they would render central and eastern Europe services such as 600-ton waterways never can render.

CHAPTER VII

RUSSIA

IN Russia the State exercises control over the railway rates in two ways. In the first place, the State itself owns and operates upward of 65 per cent of the railways of Russia, and it is steadily increasing its predominance. In the second place, the Russian State council, in June, 1887, by decree, asserted the right of the State to regulate all railway rates, "in order to conserve the interests of the State, of the people, of industry and of trade."

Even before the State had assumed these wide powers, it had intervened in specific instances of rate-making. For example, in 1885 it had decreed that in the future all rates on imported articles must be submitted to the Government for approval. That decree had been issued, partly for the purpose of supplementing the policy of protection to Russian industries, partly for the purpose of fostering the Russian shipping industry. It proved effective so far as the destruction of international trade overland by rail was concerned; for in the three years ending

with 1901 the German railways carried into Russia proper (excluding the neighborhood trade with Poland) only 130,000 long tons of freight a year. In 1903 this policy of destroying overland traffic by rail was further accentuated by legislation which imposed an additional duty of 20 per cent on all dutiable articles imported by rail by way of the western frontier, as distinguished from articles brought in by sea.

In 1884-87, when 82 per cent of the railway mileage of Russia was still owned and operated by corporations, the rates on grain destined for export fluctuated greatly in consequence of the competition of the railway lines leading respectively to the Baltic Sea and the Black Sea. The public, or sections of it, complained of the fluctuations and of the inequalities in rates, and alleged that the rapid and unequal reductions in rates increased the profits of the merchants, with no benefit to the farmer. Thereupon the State took up the matter, and in November, 1888, it issued a provisional tariff for the carriage of grain. The characteristic feature of that tariff was its rapidly tapering rates, which were designed to give the agricultural products of the remote regions of Russia access to the market, domestic as well as foreign. For the first 240 miles of any haul the rate was to be 1.647 cents per short-ton mile, for the next 830 miles it was to be 0.495 cent per ton-mile, and for the following 880 miles it was to be 0.197 cent. Grain shipped upward of 1950 miles was to

pay on the assumption that it was carried 1950 miles only.

In 1889 the rates on grain were raised somewhat, and the new rates were retained until 1893. In that year was abandoned the past policy of bending every energy to giving the remote regions access to the markets, domestic or foreign, and then was established the policy of protecting the old-established agricultural interests of central Russia from the competition of the newly opened regions of eastern Russia. Previous to the building of railways into eastern Russia, central Russia had enjoyed the monopoly of supplying with agricultural produce the most important Russian domestic markets — those of the industrial regions of the West, the Northwest and the valley of the Vistula. The breaking of this monopoly, through the opening up of the East, coincided with the world-wide fall in the price of grain which began in the eighties; and those two factors precipitated a decline in land values in central Russia. The landowners of that region were sufficiently powerful politically to force the Government to recognize the doctrine which the Interstate Commerce Commission would love to introduce into this country — namely, that each locality or section is entitled by natural right to the advantages of trade or industry accruing to it by virtue of its geographical position. The landowners of central Russia claimed that they had the

*Sectional Issues
appear in Rus-
sian Railway
Management*

first right to the markets of the West, the Northwest and the valley of the Vistula; and they forced the State to recognize that claim.

In the revision of the grain rates made in 1893, the Government reduced the rates generally; but it made an exceptionally heavy reduction upon grain shipped to domestic markets over distances not exceeding 213 miles, on the theory that points within 213 miles of a domestic market should have especially low rates to that market. It was expected that the concession in question would give the farmers within 200 miles of an industrial centre a qualified monopoly of supplying that centre, and thus would enable them to raise the price of their agricultural land, at the expense partly of the population of the industrial centres and partly of the railway revenues.

The revision of rates in 1893 was intended to help the farmers of the remote districts, by making reductions in rates which should enable them to ship their grain past the cities reserved for the farmers of central Russia to the seaports on the Baltic and the Black Sea. But the price of wheat and rye fell very rapidly in 1893-95, and the reductions made in 1893 proved insufficient for carrying off without much friction the grain of the remote regions. The grain that could not be exported freely was thrown upon the markets of central Russia. That fact, together with the fall in prices in the international markets, caused a further drop in the value of land

in central Russia in 1893-96; and that fall in land values led, in 1896, to a renewed effort to use the power of the State to relieve the landowners of central Russia.

The legislation of 1896 increased from 213 miles to 361 miles the distance over which especially low rates were given, for the purpose of conserving to the farmers of central Russia a qualified monopoly of the markets of the industrial West, the Northwest and the valley of the Vistula. In order to make good the loss of revenue anticipated from the extension of the "low-rate belts," the rates on long-distance shipments were raised, so that all shipments over 800 miles paid more under the tariff of 1896 than they had paid under the tariff of 1893. The serious nature of such an increase in charges may be inferred from the fact that about one-third of the export grain of Russia that goes to the place of export by rail is sent abroad by way of the Baltic ports, after travelling by rail distances that range from 735 miles to 1070 miles. Another 14 per cent goes abroad across the western frontier, and that also makes a long journey by rail in Russia. Again, as late as 1899, one of the leading writers on Russian economic conditions, Mr. von Schulze-Gövernitz, stated that the transportation charges, even from the districts lying west of the river Volga, frequently exceeded 50 per cent of the value of grain in the Baltic ports.

In 1900 the rates on grain were revised. Once more the Government tried to reduce the rates on long-distance shipments; and once more it was compelled to yield to the demands of central Russia, and raise the charges on the long-distance shipments of wheat.

In the period from 1889 to 1895 the average receipts per ton-mile for grain carried "for domestic use" had fallen from 1.094 cents per ton-mile to 0.889 cent, or 18.7 per cent. In that same time the average receipts per ton-mile for grain carried "for export" had fallen from 0.889 cent to 0.839 cent, or 5.6 per cent only. In the period in question, the average length of haul of grain "for domestic use" had risen from 255 miles to 330 miles, whereas that of grain carried "for export" had remained stationary at 440 miles, showing that the adjustment of rates had not been such as to force the cultivation of the soil in the outlying regions, where there is still much untilled arable land.

By increasing the area of land under cultivation or by improving the methods of tilling the soil, Russia could increase enormously its production of grain. For any increased product Russia would have two markets,—the export market and the market created by the city population of Russia itself. Of these two markets, the former is the more elastic, a fact

which makes it, in the immediate present, the better market to cultivate.

Seven-eighths of the population of Russia is country population, and lives by agriculture. The great bulk of this population lives west of the Volga, and has a miserably low standard of living, largely because the land is relatively overpopulated. If the surplus population to the west of the Volga could be moved to the untilled lands east of the Volga, the standard of living of all Russia could be raised enormously, and there could be developed in Russia a country population which would demand manufactured articles of all kinds, and would thus give rise to manufacturing industries in Russia. The persons engaged in those industries in turn would constitute a numerous city population, which would demand great quantities of agricultural products of all kinds. The first step in the process just indicated would be to move on to the lands of the East the surplus population of the West. In the beginning — that is, until the city population of Russia itself should be brought into existence — the pioneer farmers of the East would have to depend mainly upon the export market; and this is why it was bad policy for Russia to abandon, in 1893, the policy of bending every energy to giving the settlers of the outlying regions access to all markets, domestic as well as foreign.

The attempt to keep up the value of land in cen-

tral Russia was ill-advised in every way. Even if it had been successful, it would not have created any serious demand for the products of the Russian manufacturing industries. If successful, it would but have raised land rents, which go into the pockets of the landholding aristocracy — a class too small to create a demand for manufactured products sufficient to give rise to a Russian manufacturing industry. Such a demand could come only from the great mass of the people, the peasants and the farmers, who, in the main, till land which they rent from the aristocracy. To these peasants and farmers it is a matter of indifference whether land values and rents are high, or whether land values and rents are low: to them the vital matter is the margin between the price of agricultural produce and the cost of raising and marketing such produce. And the transportation charges on the produce going to the international markets are among the most important items constituting the cost of raising and marketing agricultural produce. As far back as the period 1889-95 not less than 60 per cent of the grain carried upon the railways of Russia was grain destined for export.

No one could appreciate more keenly than did the Minister of Finance, Mr. de Witte, the need of facilitating Russia's export trade in grain. But in this matter, as in others, Mr. de Witte was blocked by sectional jealousies, class interests and unintelligent public opinion — the last of the three forces being

largely the product of the suspicion of, and hostility to, the man of affairs, propagated so successfully by the latter-day European political economy. What kind of forces Mr. de Witte had to contend against can be best illustrated by an enumeration of the reasons that led to the rejection, in 1896, of the proposal that there be established a uniform rate of 0.427 cent per ton-mile on grain — primarily in the interest of the “export traffic.” The body of landowners, millers and railway officials, public and private, convened by the Government to report upon this proposal, rejected the proposal on the following grounds: the reduction would cause a loss of revenue of \$17,500,000 to the State railways and of \$2,500,000 to the private railways. It would benefit primarily the southern regions and the more remote eastern ones, at the expense of central Russia. Again, in the past the landowners who had been able to market their produce by using the rivers had enjoyed an advantage over those landowners who had been obliged to use the railways. That was because the transportation charges upon the rivers were very much below those upon the railways. Those owners of land that had access to the rivers must not be deprived of that relative advantage through the lowering of the railway charges. Finally, it was objected that a considerable and sudden reduction in freight rates would so stimulate the production of grain as to cause a corresponding decline in the price of grain

in the international markets and would, therefore, redound only to the benefit of the foreign consumer. To raise grain for the purpose of "dumping" it on the international market would be to waste the nation's resources and to misapply the nation's labor.

Upon the opening of the western portion of the Trans-Siberian Railway, in 1896, the Government extended to the carriage of Siberian wheat the policy of protecting the West against the competition of the East; only the discrimination in rates practised against Siberian wheat exceeds that against the wheat of the eastern regions of Russia proper. Under the system of tapering rates in force upon the Russian and Siberian railways, the charge per ton-mile falls from 1.804 cents for the first 120 miles to 0.692 cent for that part of the haul comprised between 121 miles and 294 miles, and finally to 0.250 cent for that part of the haul between 895 miles and 1094 miles. But for that part of the haul comprised between 1095 miles and 1888 miles, the charge rises to 0.391 cent; and for distances beyond 1888 miles the charge per ton-mile becomes 0.564 cent.

Reval, on the Baltic, is the favorite port for the Siberian wheat seeking the market of England and Germany. It is 2400 miles from Omsk, the first important grain market upon the Trans-Siberian Railway, 2790 miles from Kriwoschtschekowo, the second important market, and 3265 miles from

Krassnojarsk, the third important grain market. The discrimination against Siberian wheat sent from these three Siberian stations is respectively \$3, \$4.34 and \$5.98 a gross ton. In 1899 these sums would have been equivalent respectively to 23 per cent and 33 per cent of the price of wheat and rye at Omsk; to respectively 40 per cent and 62 per cent of the price of wheat and rye at Kriwoschtschekowo; and to respectively 68 per cent and 125 per cent of the price of wheat and rye at Krassnojarsk. When one takes into consideration that the Siberian wheat regions lie to the south of the Trans-Siberian Railway, and that the wheat goes to Omsk and Kriwoschtschekowo by river, one may say that the discriminating charges imposed upon Siberian wheat exported by way of the Baltic ports take from the Siberian farmer, whose wheat goes to Omsk and Kriwoschtschekowo, from one-third to one-half of the value of the wheat on the farm.

On the through shipment from Omsk to Reval, the rate per short-ton mile is 0.550 cent; from Kriwoschtschekowo it is 0.552 cent; and from Krassnojarsk it is 0.585 cent. Under the application of the rates established by the provisional tariff of 1888, the charge per ton-mile would be 0.408 cent from Omsk, 0.351 cent from Kriwoschtschekowo and 0.300 cent from Krassnojarsk. Again, the railways at present are carrying steel and iron from the Baltic ports to Irkutsk, on Lake Baikal, a distance of 4360

miles, for 0.30 cent per ton-mile. As far back as 1892-94 the average cost of moving freight on the Russian railways was 0.286 cent per short-ton mile. The foregoing rate on iron and steel, therefore, is profitable, and it gives a rough indication of the rates that the Russian Government could quote on Siberian grain if it were at liberty to pursue a businesslike policy.

The Government is compelled to try to keep Siberian wheat out of the ports of the Baltic Sea and the Black Sea, on the theory that the Siberian wheat will not depress the price of Russian wheat, if it can be marketed without touching the ports used by the Russian wheat. Therefore the Government has built a railway from Tscheljabinsk, on the Siberian frontier, to Kotlass, situated at the point where the rivers Sukhona and Vichегда join to form the river Dvina. From Kotlass the wheat is carried down the river a distance of 400 miles to Archangelsk, on the White Sea, which is closed to navigation seven or eight months in the year. In order to induce Siberian wheat to take this route to western Europe, the Government abates the exactions paid by wheat exported by way of the Baltic ports. But that does not materially help the Siberian farmer. As late as 1900 the charge for carrying wheat from Archangelsk to London was \$2 a ton in excess of the charge from the Baltic ports to London. Then again the wheat must lie over for seven to eight months at Kotlass or

Archangelsk, where money is worth upward of 15 per cent a year. All these facts taken into consideration, one is not surprised to learn that Siberian wheat can be sent to the markets of western Europe only in years in which the price of wheat is exceptionally high in those markets, because of crop failures in one or more of the countries which ordinarily supply western Europe. Nor is one surprised to learn that the amount of wheat carried by the Trans-Siberian Railway remained stationary from 1898 to 1901 at about 330,000 long tons a year, even though the immigration into Siberia from Russia in 1895-1900 had aggregated 1,046,000 people, and the land occupied by the immigrants of 1893-1900 had amounted to 7,500,000 acres.

The Russian emigrants who in the seventies had settled in the best parts of the Siberian territory of Akmolinsk, which lies immediately east of the Russian frontier and south of the Trans-Siberian Railway, in 1891 were cultivating on an average 25 acres of land for grain per farm. Going eastward one comes to the Altaï region, "the Eldorado of the immigrants," where in the later eighties the settlers were planting to grain on an average 15 acres per farm. Turning northward to the province of Tomsk, one finds that in 1894 the settlers had under grain on an average 13 acres per farm. In the neighboring province of Jenisseisk, in 1890-92, the average

*Need of American
Railway Rate
Practices*

area under wheat was 19 acres per settler. These were the average sizes of the areas per farm under grain in regions in which the average size of the farms themselves ranged from 56 acres to 117 acres. It is true that the foregoing figures refer to the period before the building of the Trans-Siberian Railway, of which the western portion was opened in 1896. But it is equally true that the building of the railway in question can make no material change in the situation indicated by the figures quoted, so long as the railway shall be managed as it has been managed in the past.

Professor Issajeff, writing in 1891 or thereabout, expressed the opinion that the Russian farmer who owned 25 to 30 acres of land would gain little by emigrating to Siberia; and that the man who could materially improve his condition by emigrating was the peasant who owned but 3 to 6 acres. In 1898 Mr. Kaufmann, an official of wide experience in the taking of agricultural censuses in Siberia, stated that his own experience supported the opinion expressed by Professor Issajeff. He said that the Russian peasant or farmer who cultivated from 13 to 22 acres would, on an average, not increase the area which he had been cultivating were he to emigrate to Siberia.

In the western division of the United States the average number of acres of improved land per farm rose from 52 acres in 1850 to 168 acres in 1870, and

to 186 acres in 1880. Subsequently, with the filling up of our country, it fell to 112 acres in 1900. The period ending with 1880 was the period of pioneer, or one-crop, farming. It was the period in which our country was opened to settlement by means of farmers who moved to the frontier ahead of population, there to raise food-stuffs for consumption upon the Atlantic seaboard and in Europe. The incomparable efficiency with which the American railway served those pioneer farmers, or one-crop farmers, enabled those men to attain and maintain a high standard of living, and that meant the creation of a market, growing with tremendous rapidity, for the products of the factories of the Eastern and the Middle States. The cotton industry, the woollen industry and the shoe industry of the Atlantic seaboard, the iron and steel industry of Pennsylvania, and the innumerable other manufacturing industries of the Atlantic seaboard States and of Pennsylvania, New York and Ohio, would not have experienced the marvellous growth which they in fact enjoyed, had it not been for the western farmer's demands for the products of those industries. On a relatively smaller scale, but on a scale still large absolutely, Russia might make Siberia serve the same purpose that our West served the United States. It might create in eastern Russia and in Siberia an agricultural population with a standard of living incomparably higher than the present stand-

ard; and that population would give to Russia's infant industries an impetus such as the policy of protection and subsidies, direct or indirect, cannot hope to give.

One is apt to deem the Russian and the Siberian peasant hopelessly unprogressive. Therefore it is worth while to recount what the Siberian peasant has been made to do under the incentive of gain, in the single instance in which the railways were free to coöperate with men of enterprise and capital in the development of Siberia's resources. As Russia proper produces no butter for export worth mentioning, there were no interests to oppose the building up of Siberia's export trade in butter. In 1894 there were in Siberia two creameries which produced butter for export—14,500 pounds. In 1902 there were between 2000 and 2500 such creameries, producing for export 90,280,000 pounds of butter. That product was worth about \$12,500,000, or \$3 per man, woman and child living in the three principal butter-manufacturing provinces: Tobolsk, Tomsk and Jenisseisk.

From points as far in the interior of Siberia as Minussinsk, on the Jenissei River, 350 miles south of Krassnojarsk, butter is carried by river to the Trans-Siberian Railway, and thence by special butter trains to the Baltic ports, for export to Denmark, England and Germany. The butter trains consist

of 20 to 25 refrigerator cars; they travel about 202 miles a day; and the charge for the carriage of butter is about one cent per short-ton mile. With that charge in force, best quality butter sells at wholesale for 15 cents to 18 cents a pound at Tomsk, and cooking butter sells at retail for 10 to 11 cents.

Were the Russian Government free to coöperate with equal energy and intelligence with the men of enterprise and capital who stand ready to develop Siberia, that country shortly would have an enormous export trade in grain, cattle, beef and lumber. The development of Siberia would relieve western and central Russia of its present condition of over-population; and would raise the scale of living in those regions, not only by drawing on the surplus population, but also by supplying the population that would remain behind with cheap meats, timber and fuel. At present the annual consumption of meat per inhabitant is about 38 pounds for Russia as a whole and about 20 pounds for the country districts. In southern Russia the scarcity of timber and fuel is such that the inhabitants even of the larger villages and the towns burn nothing but manure.

The wooden plough used by the peasants of Great Russia scrapes the ground, or rather tears it, to the depth of $1\frac{1}{2}$ inches. That used by the peasants of Little Russia penetrates to the depth of 2 or 3 inches. For Russia as a whole, the agricultural output per head of farming population is only 10 per cent of that

of the United States. The Russian peasant compares with the American farmer as does the hand weaver with the weaver who uses machinery. These facts will indicate to the reader the revolution that could be effected in Russia and Siberia, were the Government to withdraw from regulating railway rates "in order to conserve the interests of the State, of the people, of industry and of trade."

The United States has been confronted with the same conflict of interests as Russia: the competition of new, cheap lands with old, dear lands, and the demand of the owners of the latter for protection. But as there was no one to whom to make an effective appeal, no one enjoying governmental authority upon whom pressure could be brought, — Congress having steadfastly declined, down to 1886, to regulate interstate railway traffic, — such demands, to our infinite advantage, were not granted. The conflicting agricultural interests of our East and West were left to adjust themselves in accordance with the natural working of business. How extensive were the painful readjustments made necessary by our national growth, and how severe would have been the political pressure, if that could have been of any avail, is indicated by the following facts: in the 20 years ending with 1900 the area under wheat in Ohio, Indiana, Illinois, Michigan, Wisconsin and Missouri (which is not that part of the country hard-

*Rapid Adjust-
ment to New Con-
ditions in the
United States*

est hit by the competition of the newer West) fell from 18,600,000 acres to 9,000,000 acres, and during the same period the area under wheat in Kansas, Nebraska, Minnesota and the Dakotas rose from 7,200,000 acres to 17,200,000 acres. The extent of the destruction of land values in the East, and of the building up of land values in the West, has been almost as enormous as has the transmutation in crops. Thus, in spite of the great appreciation of land in the vicinity of cities, which have grown up very rapidly in consequence of the growth of the manufacturing industries, and in spite of the large sums invested in buildings upon dairy farms, fruit farms and truck farms, the total value of the farm lands, with buildings and improvements, in the States of New York, Pennsylvania and Ohio, fell from \$3,159,000,000 in 1880 to \$2,823,000,000 in 1900. But this great destruction of farm values in New York, Pennsylvania and Ohio, to say nothing of that in Massachusetts, New Jersey, Maryland and Delaware, was far more than made good by the agricultural development of the West alone, leaving out of all account the development of other forms of property value in the East, through the building up of manufacturing centres and trading centres dependent for their existence upon the farming communities at the West.

In the period from 1880 to 1887 the Russian railways were learning to "compete for common mar-

kets." There was competition for the carriage of grain for export among the several railways leading from the interior to the several Baltic ports, and competition between the two sets of railway systems leading from the interior to the Baltic Sea and the Black Sea respectively. At that time upward of 80 per cent of the railways were owned by corporations, and throughout the greater portion of that period the Government exercised practically no control over railway rates. The competition in question was not so keen as it would have been, had the Government not guaranteed to the several railways certain returns upon the capital invested. None the less it was rapidly becoming more effective; and in course of time it would have become the same powerful force for reducing railway rates that it has become in the United States.

When the Government assumed control over railway rates, partly through acquiring and operating the railways themselves, partly through legislative regulation, it checked the development of the competition for the market, the development of competition between the railways and the rivers, and the development of the practice of forcing the exploitation of the resources of the country by charging what the traffic will bear. It is true that, in spite of the application of these several checks, the average receipts per short-ton mile have declined

Government Regulation drives Traffic to the Waterways

steadily from 1.176 cents in 1881 to 0.811 cent in 1900. But under the free play of the commercial forces the decline would have been more rapid: in other words, there would have been a greater development of long-haul traffic and traffic in low-value, bulky commodities. This statement is supported by the narrative that has gone before, as well as by the extraordinary volume of river-borne traffic to be found in Russia.

In the five years ending with 1900 the rivers of European Russia carried each year on an average 28,900,000 gross tons of freight, as against 55,300,000 tons carried by the railways. But since the average haul per ton was 518 miles upon the rivers, and only 294 miles upon the railways, the average annual river traffic was 14,978,000,000 ton-miles, as against an average annual railway traffic of 16,472,000,000 ton-miles. In this period the average length of the railways was 25,800 miles, and that of the waterways was 52,000 miles. But 26,300 miles of the rivers were navigable only by rafts, or by barges which were floated down-stream and broken up at the end of the journey. Only 25,600 miles of river were navigable by steamers. The important part played by the internal waterways in developing resources which the railways cannot fully develop is shown by the great difference in the average length of haul upon the rivers and the railways respectively. In the years 1894-96 the average haul for naphtha

was 969 miles upon the rivers and 331 miles upon the railways; for oats it was 906 miles upon the rivers and 531 miles upon the railways; for rye flour it was 719 miles upon the rivers and 406 miles upon the railways. Again, in 1897, there were carried into St. Petersburg and Kronstadt, by means of the Volga and the Marien canal system, 4,341,000 gross tons, which made an average journey of 400 miles. Sixteen per cent of that freight consisted of grain, which made an average journey of 1364 miles by river and canal. In fact, the grain raised east of the Volga and north of 50 degrees latitude goes to market largely by way of the Volga and the Marien canal system. It is this heavy movement of eastern grain up the Volga that makes the aggregate amount of grain carried to the seaboard by river equal to 30-35 per cent of the amount carried thither by rail.

The petroleum industry at Baku, on the western coast of the Caspian Sea, also depends greatly upon the Volga. In the six years 1896-1901 the amount of petroleum carried by sea from Baku to Astrachan, and thence up the Volga, increased from 2,817,000 gross tons to 4,750,000 tons. In fact, petroleum destined for consumption in Russia uses the railways only for the purpose of reaching points not accessible by river. And petroleum destined for export goes by rail or pipe line to Batum, on the Black Sea, and thence by vessel. Though Russia sends to Germany large quantities of petroleum, the amount sent across

the Prussian frontier by rail is less than 25,000 tons a year.

About 70 per cent of the traffic upon the Russian rivers is carried by the rivers Volga, Neva and Dvina, and about 50 per cent is carried by the Volga. The traffic upon the last-named river increased from 8,500,000 gross tons in 1891 to 18,000,000 in 1901. It is carried at very low rates and in vessels that range in capacity from 165 gross tons to 2500 tons. The average receipts per ton-mile are about as follows: for grain, 0.104 cent; for petroleum and its products, 0.149 cent; for iron, 0.180 cent and for fish, 0.415 cent.

These rates are very low. Nevertheless, the railways should before long be able to meet them. In the period 1892-96 the Government roads reduced their operating expenses from 0.657 cent per ton-mile to 0.561 cent. In that same period they reduced their expenses of "conducting transportation" from 0.294 cent per ton-mile to 0.265 cent. Were they to make a determined effort to get the traffic which now goes by river, and to build up new traffic by forcing the development of resources wherever found, they should be able to develop a volume of traffic which would so reduce the cost of carrying freight as to enable them to meet the rates upon the rivers.

It is to the interest of the producers of Russia that the railways supersede the waterways. In the first

place, the rivers are navigable only six or seven months in the year. While they are open to navigation, the prices of grain in the districts served by rivers follow closely the prices of grain in the export markets of the Black Sea and the Baltic Sea, though not so closely as they would, had the competition between the railways themselves and the competition between the railways and the waterways developed a keener competition among the various ports of export. But when the rivers are closed to navigation, the prices of grain in the territories served by rivers frequently lose all relation to the prices in the ports of export. Thus, in the period from 1893 to 1896 the price of rye, the principal crop, at times fell to \$1.60 a gross ton in the territory east of the Volga, though the monthly average price in the Russian ports did not at any time fall below \$1.30 a gross ton. The sensitiveness of the price of grain to interruptions of transportation is shown also by the fact that in the interior districts grain at times has fallen 4.3 cents and more a bushel, in consequence of blocks in the railway traffic occasioned by a lack of cars.

The Russian peasant lives a hand-to-mouth existence; he cannot pay the cost of insuring his crops against fire during the season of closed navigation, and his taxes fall due shortly after the crops have been harvested. These several factors put him much at

the mercy of the local buyers of grain in the season of closed navigation. If the territory east of the Volga were better supplied with railways, there would be a steady demand the year round for the peasant's grain. And if the several railways from the Baltic ports and from the Black Sea ports were to compete more keenly with one another for the carriage of the grain raised in the interior, the exporters would discontinue the practice of buying in the places of export from local dealers shipping from the interior. They would themselves buy directly of the peasants and farmers, or they would buy in the interior of the local dealers. The competition within this new class of buyers in the interior would be much more extended and much keener than is the competition among the present local dealers; and that new and increased competition would diminish the commission charges for collecting and marketing grain, and thus raise the price of grain upon the farm.

There are further reasons why it is not to the interest of the Russian producer to use waterways rather than railways. No country can be covered so completely by canals and rivers as it can be covered by railways. On the other hand, branch railway lines can be made profitable only as feeders to main lines; they cannot be built as feeders to rivers.

Even in European Russia there still are large areas of arable land which cannot be cultivated because they have no access to market. In fact, the country

has barely begun to be supplied with railways. On the other hand, the Russian Government is not in the position financially to make vast capital outlays which will be unremunerative for a number of years. Therefore it cannot prosecute with proper despatch the work of covering the country with a net of railways that shall make it possible to cultivate the whole of the arable area. So far as the Government shall continue to allow the rivers to carry freight that the railways might carry, so far will it handicap itself in the performance of the necessary and stupendous task of supplying Russia with the necessary railways — a task which, at best, it can perform but inadequately.

CHAPTER VIII

AUSTRALIA

THE railways of New South Wales, Victoria and South Australia compete with each other for the traffic of the "Riverina," the great wool-producing centre of Australia. The region in question lies west of longitude 147 degrees, and between the Murray and the Darling rivers, forming the southwestern portion of New South Wales. The Riverina sheep grazier naturally will buy his supplies where he sells his produce. Then, again, the storage and sale of wool give work to a great many people in the seaboard city from which the wool is exported, besides affording employment for a large part of the banking capital of the exporting city. Loans upon consignments of wool, together with loans upon sheep and upon grazing lands, constitute the foundation of the banking business in Australia, and the grazier naturally will obtain his loans where he sells his produce. The fight between the several railways for the traffic to and from the Riverina, therefore, is not so much a mere struggle for railway revenue as it is a struggle between Melbourne, Sydney and Adelaide for commercial and financial supremacy in Australia.

It would be a comparatively easy matter for the railway managers of the several colonies to agree upon a division of the Riverina traffic which would be equitable from the traffic manager's viewpoint. Indeed, the railway commissioners of Victoria, New South Wales and South Australia, in 1895, agreed upon a division of the traffic; but the Government of Victoria refused to ratify the agreement or pool, on the ground that it would endanger the commercial and financial interests of Melbourne. The premier, Sir George Turner, in reviewing the situation, some three years later, said "he doubted whether much profit accrued to the Victorian railways from the Riverina trade, the traffic in question being carried at very low rates. But they must consider this great point: the whole of the business was transacted in Melbourne and not in Sydney, and the loss of that business would be of far more importance than the loss of the railway revenue derived from the business."

This Australian situation affords a complete parallel to one of the most instructive chapters in the railway history of the United States — the opposition of the city of New York to the division of the traffic between the interior of the United States and the Atlantic seaboard, agreed upon from time to time by the railways leading to the interior from New York, Philadelphia and Baltimore, respectively. Long after the railways from New York into the

interior had recognized the claims of the Philadelphia and Baltimore railways to a share in the export and import trade of the United States, New York City, under the leadership of the New York Chamber of Commerce, asserted that it had a "natural right" to the monopoly of the export and import trade of the United States. Down to the present day, in season and out, the New York Chamber of Commerce has used its great power to make public opinion, for the purpose of defeating the divisions of traffic agreed upon by the several sets of railways leading from the Atlantic seaboard to the interior. Indeed, the two most desperate trunk line wars that this country has witnessed were due in part to the fact that the management of the New York Central was forced to convince the public opinion of New York, by means of a fight to the finish, that the Pennsylvania Railroad, together with Philadelphia, and the Baltimore and Ohio Railroad, together with Baltimore, never would submit to the abolition of the "differentials,"—a device designed to give Philadelphia and Baltimore a share in the export and import trade.

Had the railways of the United States been under effective control of the federal Government in the seventies and the early eighties, we should have had each one of the several groups of Senators and Representatives from New York, Pennsylvania and Maryland making different demands upon the federal administration; and we should have had them mak-

ing their support of administrative measures and policy conditional upon the recognition of their claims with regard to the differentials. The extraordinarily difficult situation in which the administration would have been placed is apparent: New York would have demanded unconditional abolition of the differentials, Pennsylvania would have demanded one set of differentials, and Maryland would have insisted upon another.

In Australia the question of the adjustment of the railway rates from the interior to Sydney, Melbourne and Adelaide proved one of the most stubbornly contested points in the proceedings of the several conventions called to frame a plan of federation. *Competition of the Ports threatened to defeat Federation* In fact, Sir George Turner, Premier of Victoria, and Mr. G. H. Reid, Premier of New South Wales, had to have recourse to distinguishing between preferential rates and differential rates. They put into the federal constitution clauses forbidding preferential rates and sanctioning differential ones, defining a preferential rate as illegitimate, because aiming to give one city traffic that properly belonged to another, and defining a differential rate as a legitimate reduction in rates made in order to develop traffic. They also established a body, on the pattern of our Interstate Commerce Commission, endowed with power to say whether any rate complained of is preferential and therefore illegitimate, or differen-

tial and therefore legitimate. In this way Sir George Turner and Mr. Reid glided over a difficulty that threatened to prevent federation. But they merely postponed the day of reckoning; for it is not within the power of man to prove to the satisfaction of each one of two or more rival cities when a rate ceases to be a differential rate and becomes a preferential one.

Even more important in securing the adoption of federation was the provision that each colony should retain in its own hands the management of its railways. Under that arrangement Victoria can continue to put penalizing rates on grain sent from northwestern Victoria to Adelaide, as well as on merchandise brought from Adelaide into northwestern Victoria. New South Wales can continue to put penalizing rates on traffic sent by rail from Victoria into New South Wales. It can also continue to refuse to connect its Riverina railway lines with the Victorian lines to Melbourne, or to allow private enterprise to make the connections, thus forcing the people of the Riverina to reach the Victorian lines by means of wagons drawn by horses or by means of the small craft that can navigate the Darling, the Murray, the Murrumbidgee and the Lochlan rivers.

In this last respect New South Wales still stands where the United States stood some 30 to 50 years ago, when Pennsylvania refused the Baltimore and Ohio Railroad access to Pittsburg, lest Baltimore should take trade from Philadelphia; and the Legis-

lature of New York ordered that the State-aided Erie Railroad should begin at a point 25 miles from New York City, lest Jersey City should derive benefit from the railway.

Turning from the railway-rate situation in the field of interstate trade and traffic in Australia, we find within the several States rigid adherence to a

Tapering Rates system of tapering rates which has re-
concentrate Trade sulted in a remarkable concentration
and Population on of trade and industry in the leading
the Coast seaboard city of each State. To illus-

trate: if the railway charge be one cent per ton-mile for the first 50 miles, 0.5 cent for the second 50 miles and 0.3 cent for the third 50 miles, the average charge per ton-mile for a shipment of 150 miles will be 0.6 cent. That will be the cost to a merchant located in some small town 150 miles in the interior who makes a purchase in Melbourne. If that same merchant buys of a wholesale dealer located in a town 100 miles in the interior, he will have to pay at the rate of one cent per ton-mile for 50 miles. But the wholesale dealer who had purchased in Melbourne had already paid a freight charge of 0.75 cent per ton-mile to have the freight brought from Melbourne. Hence, by the time the commodities purchased of the wholesaler located 100 miles in the interior will have reached the merchant located 150 miles in the interior, they will have paid an average charge of 0.83 cent per ton-

mile, as against an average charge of 0.6 paid by commodities purchased directly in Melbourne. It is obvious that, under these conditions, it will be impossible to establish a distributing trade in the intermediate interior towns. And that has been precisely the experience of each Australian colony. For example, when the railways of Victoria terminated at Ballarat, 100 miles in the interior, that town had a considerable wholesale trade, the commodities being distributed by horse and wagon to the smaller interior towns. But when the railways were extended beyond Ballarat, it became more profitable for the merchants of the smaller towns beyond Ballarat to purchase in Melbourne. Ballarat lost its distributing trade, and its more ambitious wholesale merchants removed to Melbourne. Similarly, the manufacturers who were located at Ballarat and had to pay a comparatively high average ton-mile charge on the imported raw material which they used, as well as a comparatively high ton-mile charge on the finished product produced, found it impossible to compete with the Melbourne manufacturers, who shipped their finished product at a comparatively low ton-mile charge. The result was that those manufacturers who had an ambition to manufacture for the trade of the colony, as a whole, also moved to Melbourne. And this movement of trade and industry to the seaboard cities is in large part responsible for the extraordinary concentration of the

people of Australia in a few cities,* — a concentration which Mr. Reid has called “the curse of Australia,” because it enables the people of a few overgrown cities to make the laws of a country whose resources are mainly agricultural and pastoral.

The railways of the United States began with a system of tapering rates. But the necessity of meeting water competition at certain points, and the competition between the railways themselves at others, soon led to wide departures from such a scheme — to the making of competitive rates which grew in time into the “basing point” system. Under that system the rates from, say, New York to Atlanta, a basing point, will be so low that the sum of the through rate from New York to Atlanta, plus the local rate from Atlanta to any point within, say, 100 miles, will not exceed the direct through rate from New York to that point. In other words, within a certain radius of Atlanta, the wholesale merchant of that city will be on a footing of equality with the wholesale merchant of New York. The wholesale trade of New York will be decentralized — that is, a part of it will be transferred from New York to Atlanta.

The basing point system has been a tremendous

* In 1901 there were living in Sydney, 36 per cent of the population of New South Wales; in Melbourne, 41 per cent of the population of Victoria; and in Adelaide, 45 per cent of the population of South Australia.

force in decentralizing the trade and industry of this country, in building up trading and manufacturing cities in the South, the Middle States, the Southwest, the West and the Northwest. The system frequently involves the violation of the so-called "long- and short-haul principle," and for that reason, with others, it has been disapproved by the Interstate Commerce Commission. On the other hand, it is well known that, so far as that body succeeded in breaking down the basing point system, it drove trade from the interior distributing centres to Chicago, New York and the other Atlantic seaboard cities. In fact, the most radical reduction in railway rates ordered by any State Legislature down to 1888 was prompted largely by the desire to protect the jobbing centres of a Middle Western State against the loss of trade to Chicago resulting from the partial enforcement of the long- and short-haul clause of the act to regulate commerce. It is well known, also, that the merchants of New York and Chicago would like to see the Interstate Commerce Commission succeed in its efforts to break up the basing point system, for they know that the present wholesale trade of the basing points would then come to them.

The basing point system has another great merit besides that of decentralizing population: it enables the railways to effect great economies in the cost of conducting transportation. In the absence of basing points, freight has to be carried over long distances

from the sources of supply irregularly and in small lots. The establishment of basing points makes possible the bunching together of these small and irregular bits of traffic into huge train-loads, which are handled with the greatest economy. It limits the costly traffic of small volume and intermittent flow to the relatively short hauls from the basing points to the points of consumption. Even in the absence of the exigencies of competition, it would, therefore, be to the interest of the railways to establish such points for the preliminary concentration of traffic which comes from distant sources of supply and which is ultimately to be distributed among a scattered population. Such a device also serves the interest of the public at large; for, by increasing the margin of profit of the railways, it encourages railroad building, especially in the thinly settled portions of the country. Everybody in the United States to-day would have poorer railway facilities, and less of them, for getting his product to market, had the railways all along been hampered in handling traffic in these ways which realized savings and increased the margin of profit on railways built ahead of traffic.

One of the reasons for the ridiculously low average of the train-load in Australia — 74 tons in New South Wales — is the comparative absence of interior jobbing centres, with the resulting necessity

of distributing freight from the seaboard cities in small and intermittent amounts. Small train-loads, on the other hand, mean high operating expenses, large deficits in the Railway Department, heavy burdens upon the taxpayers and the postponement of the day when the country at large shall be adequately supplied with transportation facilities.

Time and again the merchants and manufacturers of the interior towns of New South Wales have appealed to Parliament for relief from the effects of the present practice as to railway charges. They have asked that the principle embodied in the "milling in transit" rates on grain and flour, and in the "scouring in transit" rates on wool, be extended to merchandise in general. The "break journey" rates demanded would allow merchants at interior towns to bring merchandise from Sydney, store it in their warehouses, and reship it to smaller towns farther inland at rates which would not exceed the direct rate from Sydney by more than a small terminal charge for unloading and loading at the intermediate city. But the Government thus far has refused to grant the relief demanded, partly because it fears that "break journey" rates would give rise to extensive frauds, partly because it fears the opposition of the Sydney merchants and manufacturers.

In the other colonies the situation is similar to that in New South Wales. In Victoria, indeed, there has arisen of late a further and highly instructive devel-

opment of the past situation. In 1895 the Minister of Railways, Mr. Williams, admitted that the Railway Department was favoring certain Melbourne manufacturers, as against the manufacturers of the interior towns, because of the problem of the unemployed in the metropolis.

The merchants and manufacturers of Melbourne, Sydney and Adelaide oppose any measures that would decentralize trade and industry, just as the merchants of New York City always have opposed the practices by means of which the American railways have decentralized the trade that originally was the monopoly of the seaboard cities. But there is this difference between Australia and the United States. In Australia, under Government ownership, the interests of a powerful class have prevailed, to the detriment of the country at large; in America the interests of that same class had to yield to the interests of the country at large, as a compromise between conflicting interests. Such a solution, however, can be secured only under that free play of commercial forces which is the distinguishing characteristic of those countries in which the industries are in the hands of private enterprise, and are subjected to the minimum of governmental regulation.

PART II

THE UNITED STATES

CHAPTER I

THE DEVELOPMENT OF THE WEST

WHEN the Civil War came to an end, the various industries of the United States had to provide employment for the disbanded armies of the North and the South. Scarcely had this readjustment from a war-footing to a peace-footing been effected when there came a wave of immigration which contributed about 40 per cent of the increase of population from 1867 to 1873. Finally, in the year last mentioned, occurred the memorable financial crash, the result of speculation in many lines of industry carried to ever higher and higher extremes after the close of the war. The extent of the depression which followed is indicated by the course of the imports, which fell from \$621,000,000 in 1873 to \$518,000,000 in 1875, and to \$447,000,000 in 1876. Three years later, in 1879, our imports were only \$426,000,000. This protracted period of liquidation in turn necessitated a readjustment of our industries and a redistribution of our population on an enormous scale.

The great factors in our economic progress in this eventful period from 1867 to 1880 were railroad building, with its dependent industries, and the expansion of farming.*

*Rise of the
Western Farmer*

During these years the great corn and wheat raising States of Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Iowa, Missouri, Kansas and Nebraska increased their area under corn and wheat by 39,000,000 acres, the equivalent of 70 per cent of the increase of the area under crops of all kinds in the United States. In the decade ending with 1880 the ten States in question increased in population by 4,400,000, which was 225,000 in excess of the total number of immigrants into the United States during this decade and the three years preceding.† By 1873 the railways and the westward movement of population had reached points over 500 miles from the Great Lakes. There were men of no mean authority who feared that many years must elapse before the eastern portion of the country would be

* *United States Census Reports.*

INCREASE IN THE NUMBER OF PERSONS MAKING A LIVING IN THE
SUBJOINED CALLINGS

	1871-80	1881-90
Agriculture	1,748,000	798,000
Trade and transportation	619,000	1,294,000
Manufacturing, mining and the mechanical industries	1,130,000	1,667,000

† *Statistical Abstract of the United States, 1887.*

able to consume the wheat that was being raised in the West, and that the cost of transporting this wheat to the Atlantic seaboard would preclude its exportation to Europe. Thus, in 1874 the "Pennsylvania Railroad Investigating Committee," which included among others Mr. John A. Wright, reported that it was out of the question for the West to think of depending on England as a market for its produce and as a place in which to purchase its manufactured articles. It was not much less out of the question for the West to depend on the Middle States and the East for the sale of its produce and the purchase of its supplies. The salvation of the western farmer was to move eastward or to draw the eastern manufacturer to the West. The grower of grain and the manufacturer of commodities must be brought closer together; the valleys of the Ohio and the Mississippi must become the great workshops of the United States. In that way alone could a market be created for the agricultural products of the West. The report under consideration added that, the land-grant railways and the railways built on speculation having been carried to the extreme verge of population, desperate efforts had been made to settle people along their lines. The stockholders would support the policy of making railway rates that were below the cost of carriage long enough to enable them to sell their lands or to get rid of their stock, but no longer. Moreover, even if that policy

should be continued, it would but increase the evil of a farming population that reached beyond the point where a living could be made by farming.*

The Railroad Gazette commented that this statement was one which had been much needed. It was too true, it observed, that people generally, including many railroad men who should have known better, had taken it for granted that, when a railroad gave access to any part of our unoccupied territory, it removed the only or chief obstacle to the rapid growth of the district in question to a condition like that of Ohio, Illinois or eastern Iowa. The farmers had not given sufficient consideration to the cost of transporting agricultural produce by rail; but they were beginning to learn, and no longer flocked to the "borders" as they once had done. They were learning, also, to adjust their industry to their circumstances, and the more western ones were not thinking of raising anything for the distant markets but cattle and sheep. Kansas and Nebraska were shipping cattle, rather than grain; and upon the Central Pacific and the Union Pacific Railroads wool was the principal item of through freight. Mr. Charles Francis Adams, Jr., who for many years shared with Mr. Albert Fink the distinction of being the foremost writer on railway questions, also was of the opinion that the farmer had gone "too far west."

In 1876, two years after the foregoing gloomy

* *The Railroad Gazette*, October 3, 1874.

opinions had been expressed, the surplus labor of the Eastern States, thrown out of employment by the industrial depression, began to move westward in such proportions as to attract attention. This migration took place to the farming States where cheap land could be obtained, notwithstanding that in that year the farm prices of wheat and the other cereals were from 10 to 30 per cent below the level of 1873, the marked decline in price having first taken place in 1874. In 1877 and 1878 the movement of population into the West from the New England States, New York, New Jersey and Pennsylvania reached large proportions, and was estimated at upward of 400,000 persons.* The farm price of wheat was still 28 per cent below the price of 1873, and the farm prices of the other cereals were from 25 to 30 per cent below the level of that year. In 1877 and 1878, moreover, the United States received 55 per cent of the emigrants who left Europe by way of the ports of the United Kingdom; and in 1879

* *The Economist: Commercial History and Review of 1879.*

SALES OF LANDS IN MILLIONS OF ACRES

	UNITED STATES GOVERNMENT LANDS	RAILROAD LANDS	TEXAS STATE LANDS
1872 . . .	7.12	1.00	1.00
1875 . . .	3.71	0.85	1.00
1876 . . .	4.26	1.10	1.50
1878 . . .	7.56	2.73	3.50

tion between the railways leading from the farming regions to the rival primary grain markets, and from these markets to the rival export cities on the Atlantic seaboard, transportation charges fell even more rapidly than the farm prices of agricultural products.*

Thus was solved the great problem of enabling the farmer in the interior of America to earn a living by raising produce for sale in a most distant market.

* *Changes in the Rates of Charge for Railway and Other Transportation Services*, H. T. Newcomb and E. J. Ward, Jr.

Average of 1867 to	FARM PRICES			AVERAGE REVENUE FROM FREIGHT PER TON PER MILE CARRIED
	Corn	Wheat	Oats	
1872	100	100	100	100
1873	91	99	91	88
1874	120	80	123	83
1875	76	83	84	78
1876	70	89	85	67
1877	72	98	74	70
1878	65	72	64	71
1879	77	102	87	63
1880	81	88	94	67
1881	131	110	121	65
1882	100	81	98	60
1885	67	71	75	55
1890	104	77	111	51
1895	52	47	52	46
1900	73	57	68	40

Compare also: R. H. Hooker in *Journal of the Royal Statistical Society*, December, 1900.

DIFFERENCE BETWEEN THE GAZETTE (LONDON) PRICE OF WHEAT AND
THE NEBRASKA FARM PRICE, PER QUARTER

1870-74	29s. 9d.	1885-89	11s. 8d.
1875-79	23s. 6d.	1890-94	9s. 6d.
1880-84	16s. 11d.	1895-99	11s. 2d.

The huge disbanded armies, the hosts of immigrants, the vast bodies of men in the Eastern States forced by a period of drastic liquidation and readjustment to procure new means of livelihood — all were absorbed without serious or long-continued impediment, although at times the difficulties looked insurmountable.

The fact of leading importance in the rapid expansion of farming in the United States during the period under consideration is that it had to be effected by means of so-called one-crop farming, for export, with falling prices. The settlers upon fresh lands had pushed westward so rapidly that they would have had to wait many years for the development of a local market, through the growth of a local manufacturing and commercial population. But, in the absence of a local market, diversified farming was impracticable.* It had been necessary, therefore, to have recourse to one-crop farming—to the raising of wheat in the West and Northwest, the growing of corn in the Southwest and the planting of cotton in the South.

Again, a large part of these crops has had to be exported, for our frontier has expanded out of proportion to the growth of the manufacturing population in the East. Since 1880 the country as a whole has exported each year from 21 to 41 per cent of the

** Report of the Industrial Commission on the Distribution of Farm Products.*

wheat which it has raised, the average being 32 per cent. In these same years the leading surplus wheat-producing States of Kansas, Nebraska, Minnesota and the Dakotas have had to find in the South, upon the Atlantic seaboard and in Europe a market for not less than 85 per cent of their crop.

In Europe there has been naturally a large and growing demand for American wheat, because of the rapid growth of population consequent upon far-reaching improvements in the industrial arts and the progressive development of new markets in all parts of the world. But, in order that the demand in Europe might grow rapidly enough to keep pace with the increase of our western wheat-raising area, it has been necessary to force that demand. This has been accomplished by the creation of new uses for wheat, and by causing lands in Europe to go out of cultivation for purposes of wheat raising.* There has been a considerable substitution of wheat for potatoes,

** Statistical Abstract for the United Kingdom:—*

GREAT BRITAIN

	TOTAL AREA UNDER THE PLOUGH	AREA UNDER WHEAT	AREA UNDER BARLEY	AREA UNDER PERMANENT PASTURE
	Acres	Acres	Acres	Acres
1875	18,104,000	3,342,000	2,510,000	13,312,000
1902	15,164,000	1,726,000	1,909,000	16,807,000

Before the British *Royal Commission on Agriculture*, 1896, Sir Alfred Milner and Sir Robert Giffen testified that the American competition had reduced the value of the farm lands of the United Kingdom from \$10,037,000,000 in 1874 to \$5,009,000,000 in 1894.

rye and barley as an article of human diet and an increase of its use for the feeding of animals. What has added to the difficulty of the task of obtaining an increased outlet for wheat in Europe has been that, with the raising of the standard of living during the last half century, there has occurred a substitution of meat — of beef, pork and mutton imported from the United States, the Argentine Republic, New Zealand and Australia — for wheat in the richer countries as an article of diet.* Also, with most of the countries of Europe tariff barriers against the import of wheat have been raised from time to time. The means of waging the fight for an enlarged European market for wheat has been the making of lower prices; and for the United States in particular this has had to be done in competition with Russia and Argentina, which are also surplus countries, with new and cheap areas coming under cultivation.

The fall in the price at which American wheat has been laid down in Europe — a necessary occurrence, if our wheat-raising frontier was to expand with any great rapidity — has been offset for the American farmer to a considerable extent by reductions in the cost of raising, harvesting and marketing. Mr. Edward Atkinson has estimated at 66 cents the saving effected from 1873 to 1887 in the cost of growing a bushel of wheat in the United

* Sir Robert Giffen: the real agricultural development of the last twenty years in *Appendix to the Final Report of her Majesty's Commissioners appointed to inquire into the Subject of Agricultural Depression.*

States, carrying it 1200 to 1500 miles by rail, and by lake and rail, to the Atlantic seaboard, and thence by vessel to Liverpool. Not less than 50 per cent of that saving Mr. Atkinson attributed to the reduction made in the charge for carrying the wheat to the Atlantic, 25 per cent to the reduction in the charges for ocean transportation and only 10 per cent to the reduction brought about in the cost of planting and harvesting.*

To this subject of the fall of the price of wheat in the European market, and the means and extent to

*The Industrial
East dependent
on the Agricultural
West*

which the fall has been offset to the American producer, reference will again be made in the following chapter.

For the present it is desirable to emphasize an important collateral effect of these economies. Notwithstanding the necessary fall of price in Europe, the American price has been sufficiently sustained to enable the West not only to be rapidly settled, but to be settled by a well-to-do population. This prosperous addition to the non-manufacturing portion of our population, spread over a vast area of common nationality, has given the American miner and manufacturer the largest and most rapidly expanding free-trade market in the world, and has been a factor in the industrial development of the United States no less significant than the richness of our mineral

* *Royal Commission on Agriculture*, Minutes of Evidence, Vol. II: testimony of Mr. Edward Atkinson.

resources. It has been an extraordinary aid to our development as a manufacturing nation that we have been able to draw from Europe millions of people who have given us here on our own soil, and additional to the increase of our own population, a market for the products of our mines and factories. Had we been obliged to take the first steps toward becoming a great nation of manufacturers by finding through export a market for a large part of our manufactured products among these peoples in their own countries, surrounded by high customs barriers and other impediments, we should have experienced much greater difficulties in attaining our present position. The first steps having been made in our expanding, unrestricted and familiar home market, we now go forward to leadership in the export of manufactures to the world's market as well.

The efficient working together of the various factors of this phase of our economic history is not to be taken for granted. Had it not been for the right adjustment of transportation charges, the country might have been held in the iron grip of stagnation. It was not enough that we had great natural resources, and that the invention of the railway introduced a new factor. Europe as a whole has both. If we had depended on these things, it is perfectly possible that the prairies would still wave with grass for the food of buffaloes, instead of with fields of grain for the consumption of millions of human beings. At

best, but for the work accomplished by the agencies of transportation, we might now have a sparse population spread over our western country, vegetating on the soil, consuming its produce on the spot in a state of little culture.* The rapid development of the resources of our West, merely because we had them, by a cultivated, ambitious, prosperous people, able to buy the manufactures of the East, is, indeed, not to be taken for granted. This rapid development and readjustment of the lives of many human beings necessarily involved what the late David A. Wells called the growing pains of progress. Those who felt these pains would have tried — in fact, they did try — to bring about governmental interference calculated to cause serious impediment. Judging from European experience, their efforts might have been successful, if the opportunity had been at hand — if the making of railway rates had been in national politics.

* According to Professor G. S. Callender, as early as 1816 there were about 2,000,000 of people west of the Alleghany Mountains; but the commercial towns were rarely of more than a few hundred inhabitants, and the sum total of the exports to the external world amounted to probably less than \$5 *per capita*.

CHAPTER II

THE PROTESTS AGAINST THE GROWING PAINS OF PROGRESS

THE competition of the surplus grain-producing States of the West has progressively revolutionized the agricultural practice of the East. One-crop farming in the East gave way to farming by rotation of crops; and, wherever possible, truck farming, fruit raising and dairying were substituted for the raising of grain. Scarcely had the farmers of the Eastern States, such as New York, made the transition to dairy farming when they had to adjust themselves to a new and lower level of prices. Such Middle Western States as Iowa, Illinois and Wisconsin, pressed by the competition of Kansas and Nebraska, and aided by the development of a local market, turned from wheat farming to dairy farming. At the same time the railways brought about a revolution in transportation by introducing ventilated refrigerator cars, which enabled them to carry the surplus butter and other dairy products of Iowa and Illinois into the very market of the New York dairy

farmer. The eastern farmers who had sought relief from the falling price of grain in truck farming and fruit raising fared little better than those who had turned to dairying. The railroads leading to the North, from Georgia, Florida and other South Atlantic States, soon brought north garden truck and fruits in such quantity as to establish an entirely new level of prices for vegetables and fruits.* It was this continued increase in competition, coming from the continued opening up of new sources of supply, that produced the remarkable decline in the value of farm lands in certain sections of the country in the period from 1875 to 1900. In spite of the doubling of population, farming land in the Eastern States and Middle States, excepting that in the vicinity of cities and large villages, has depreciated in many cases from 25 to 50 per cent. Land remote from railways, or adapted only for grazing, or exhausted by unwise farming, has become difficult of sale at any price in the territory east of the Mississippi and north of the Ohio and the Potomac. The total value of the farm lands, with buildings and improvements, in the States of New York, Pennsylvania and Ohio, fell from \$3,159,000,000 in 1880 to \$2,823,000,000 in 1900. West of the Mississippi, on the other

* T. H. Elliott: *Memorandum on Agriculture in the United States*; in Minutes and Evidence of *The Royal Commission on Agriculture*; Milton Whitney in *Report of the Industrial Commission on Agriculture and Agricultural Labor*; *Report of the Industrial Commission on the Distribution of Farm Products*; and Mr. Conrow in *Transactions American Society of Civil Engineers*, December, 1901.

hand, farming land has had a remarkable rise in value.*

Of course these disturbances of property values, which were necessary incidents in the development of this country, called forth storms of protest from the persons adversely affected. The farmers of New York, Eastern Farmers demand the Distance Tariff on Western Farm Produce Pennsylvania and Ohio bombarded Congress with petitions that the rates on grain be fixed on the distance basis: the rate from the farm in Kansas, say 1200 miles from the seaboard, was to be three times the rate from the farm in Ohio, say 400 miles from the seaboard. Any other adjustment of rates, it was contended, "annihilated the advantage of proximity to market" enjoyed by the eastern farmers before the railways had opened up to settlement the territory west of the Mississippi River. The late Simon Sterne championed this doctrine with the words, "The right of a man 20 miles from a market to bring his product to market over a highway (*i.e.* the railway), over a public road, at a less rate of toll than he who is 30 miles away, is one of those normal, common-sense views which no amount of argumentation will beat out of the heads of our farmers and of our plain men of sense."†

* *Abstract of the Eleventh Census of the United States*; A. H. Peters: *The Depreciation of Farming Land* in *Quarterly Journal of Economics*, October, 1889; C. F. Emerick: *An Analysis of Agricultural Discontent in the United States* in *Political Science Quarterly*, September, 1896; and *Report of the Industrial Commission on Agriculture and Agricultural Labor*.

† *The Hepburn Committee Report*, p. 3928.

A similar disturbance of property values and established interests occurred at the same time in consequence of changes in the trade routes and distributing centres of the United States. When the movement of grain from west to east, in place of from west to south, first became important, the Erie Canal dominated the situation and directed the bulk of this traffic to New York City, which had already, at the expense of Philadelphia and Baltimore, acquired the lion's share of the trade with the West in general merchandise. As late as 1866-68 practically the whole of the grain arriving at New York came by water.* But the economies on the canal stood still while those on the railways forged ahead: by 1872 the amount using the canal was only 70 per cent, and by 1876 it had fallen to 57 per cent.† This transfer from water to rail put a new face on the conditions of competition between the old rivals. Philadelphia and Baltimore, under the leadership of the able men who built the Pennsylvania and the Baltimore and Ohio railroads, now made heroic efforts to reach Chicago by rail, for the purpose of getting a share of the new commerce. In 1870 the Pennsylvania Railroad reached Chicago, through the acquisition of the Pittsburg, Fort Wayne and Chicago Railroad. The Baltimore and Ohio for a few years

* In 1869, 77 per cent of the Lake grain receipts at Buffalo were forwarded by the canal.

† *The New York Canals*, by J. A. Fairlie, *Quarterly Journal of Economics* for February, 1900.

depended on Lake Erie and Lake Michigan for an outlet to Chicago; but in 1874 it completed the Baltimore, Pittsburg and Chicago Railway.

As soon as the Pennsylvania and the Baltimore and Ohio could make rates that enabled them to compete with the Erie Canal and the New York Central Railroad, Philadelphia and Baltimore, as well as New York, became middle points of transshipment on total transportation routes between the interior of the country and Europe. By a series of rate wars with the New York Central, the Pennsylvania and the Baltimore and Ohio compelled that road to assent to the proposition that the same total charge should be made on each of these three routes. But the ocean freights between Philadelphia and Europe and between Baltimore and Europe were necessarily higher than the ocean freights between New York and Europe, since New York had such a commanding lead as a place of import. Therefore the railway charges between Philadelphia and the interior, and between Baltimore and the interior, had to be (and still must be) lower than the railway charges between New York and the interior. In other words, the Pennsylvania and the Baltimore and Ohio had to be given a "differential" on the rail portion of the total transportation route to Europe. In that way alone could they be compensated for the handicap of higher ocean freight charges. So far as total transportation charges were concerned, all three

cities must be put on a footing of equality; and the competition of the merchants of the respective cities, and the competition in facilities of the railways serving them, must then determine the distribution among these cities of the trade with Europe in dispute.*

But this arrangement does not suit New York; and when it first went into effect, something much like a *New York City* panic seized that city which must ever *protests against* be the metropolis. It was thought *the Rise of Philadelphia and Baltimore* that, if the "foreign" railways should continue to divert grain traffic from the old routes, the commercial supremacy of New York would be seriously threatened by the expansion of the export and import trade at Philadelphia and Baltimore. The merchants of New York, acting under the leadership of the Anti-Monopoly League and the Chamber of Commerce, joined hands with the newspaper press of the city in a fierce and long-continued onslaught upon the New York Central and Hudson River Railroad, for the purpose of forcing that corporation to make such rates on traffic to and from the West as to neutralize the efforts of the Pennsylvania and the Baltimore and Ohio.

In April, 1878, Mr. W. H. Vanderbilt, President of the New York Central Railroad, wrote to Mr.

* A Fink: *Report upon the Adjustment of Railroad Transportation Rates to the Seaboard; Report of Thurman, Washburne and Cooley, Advisory Committee on Differential Rates between the West and the Seaboard.*

Wilson, Secretary of the Chamber of Commerce of New York City, as follows:—

“To require the New York railroads to carry freight to and from the West at rates which would disregard the excess of cost of transportation from Philadelphia and Baltimore to and from foreign ports would give to New York merchants such advantages as would destroy the commerce of those cities. Their roads would not submit to this, nor would the cities permit them to, until they had been exhausted in the struggle to maintain a fair equilibrium. The New York roads have put this city on an equality with the most favored rival . . . the rest remains with its merchants. So long as their opportunities are as favorable as those of any other port, they can compete successfully with all comers.”*

Mr. Simon Sterne, who for more than 20 years aspired to make public opinion on railway matters, replied to Mr. Vanderbilt:—

“The contention that an arrangement which places New York on an equality with other cities is not discriminative against New York, because New York, as Mr. Vanderbilt thinks, has no right to superiority, must be conceded to be pure and simple nonsense. To level, by artificial regulations, a corporation, person or city, having certain natural or acquired advantages, down to the place of its rivals, is to discriminate most injuriously against the one having the advantages.”*

In reply to another argument Mr. Sterne observed:—

“The mere reduction of transportation charges is not necessarily a benefit to a trading community if its rivals get the same or a greater reduction. The consumer, of course, is benefited; but New York thrives upon its commerce, and not by what it consumes; and hence we must look at its interests as a trader and dealer when we come to calculate profits.”

* Simon Sterne: *The Railway in its Relation to Public and Private Interests*, an address given in New York, April 19, 1878. Compare also: *The Hepburn Committee Report*, p. 3932. Mr. Simon Sterne: “. . . By what right do our railways conspire to wipe out and destroy the natural advantages of our great city and place us upon a level with Boston, Baltimore and Philadelphia?”

Shortly before Mr. Sterne made these observations, the Committee on Railroad Transportation of the Chamber of Commerce of New York State reported that "bad city government, enormous taxation, miserably paved and dirty streets, insufficient and expensive terminal facilities and, more recently, oppressive railroad discrimination had made New York the most expensive city in the world in which to do business."* In the following year, the Chamber of Commerce of the city of New York, in a memorial to the State Legislature, said:—

"If the doctrine enunciated by Mr. Vanderbilt . . . is to be accepted, . . . and the natural advantages of New York must be abrogated at the dictation of the Baltimore and Ohio and the Pennsylvania railroads, in order to prevent a railroad war, then our merchants must look forward to establishing branch houses in other seaboard cities, our owners of real estate to accepting a further reduction upon their already greatly reduced rentals for property, our municipal authorities to a reduction in taxpaying power, which not only will compel a wholesale reduction in the expenses of government, but also impair our ability to pay interest upon our municipal securities, in which, through the savings banks, the savings of the people are largely invested."

The Nation, our greatest champion of *laissez-faire*, supported Mr. Sterne and the Chamber of Commerce with the statement:—

"That Mr. Vanderbilt's letter does not at once create a combination of the larger real estate owners, the value of whose property is dependent upon the natural advantages of New York, as it already has of the merchants, arises simply from the fact that their

* *Report of the Committee on Railroad Transportation of the Chamber of Commerce of the State of New York as to Freight Discriminations, and the Effect upon the Commerce of the City*, February 28, 1878.

interests are not so directly and immediately affected as the mercantile interest. Were, however, the full meaning and scope of this letter understood by the owners of the soil of New York, they would be as prompt as the merchants to institute an inquiry as to the nature of the causes which, either naturally or artificially, will deprive them of the main value of their property, by placing the owners of the property in Baltimore and Philadelphia in competition with themselves."

The fight against the "differentials" was continued for years, and in 1882 *The Commercial and Financial Chronicle** wrote in the following threatening fashion:—

"No matter what agreement is reached by the roads, the differentials must go. If needs be a power higher than the roads will force them out. Our business men are not tainted with communistic ideas, but they have of late years been lending their aid to schemes and measures that savour strongly of communism, being thrown into that attitude through the disregard of their rights and interests by corporations."

Upon the solicitation of the interior cities, Congress in 1870 passed a bill authorizing the transportation of imported goods in bond from the *New York City protests against the Rise of Interior Jobbing Centres* Atlantic ports to Chicago, St. Louis, Cincinnati, Memphis and other cities in the interior. These cities had begun their commercial careers as market places of minor importance for the collection of agricultural produce and as distributing points for the eastern manufactures and imports used by the farming population. At first the distributing merchants had made their purchases of the so-

* January 28, 1882.

called jobbers located in New York and in other seaboard cities. These jobbers are a class of merchants peculiar to the United States, owing their origin to the need of some agency to collect several lines of goods for the convenience of those small wholesale and retail merchants whose business does not warrant them in buying directly from the manufacturer or importer whole packages, bales or boxes of any article; and with time the jobbing business in New York City had grown to be enormous. But, as the interior cities increased in population and wealth, their merchants began to buy in large lots, and directly from the manufacturer and the importer. At the same time, jobbers established themselves in some of the interior cities, and captured a large part of the trade that had formerly gone to the larger Atlantic coast cities. These jobbers bought by the car-load lot in New York, and distributed from the larger cities to the smaller ones. They were able to get lower rates to the interior than were the New York jobbers, who shipped to the smaller interior cities in less than car-load lots.

This shifting of a part of the jobbing trade from the coast to the interior was the inevitable result of the growth of population and wealth in the interior. But the merchants of New York did not take this view of it; they fastened their attention upon a mere incident of the change, and attributed the decline in New York's jobbing trade to the discrimination in

rates in favor of car-load lots, as against less than car-load lots.* In 1879 the Committee on Railroad Transportation of the Chamber of Commerce, in a memorial to the State Legislature, said : —

“Your Committee believe that New York has a prior claim to this (jobbing) trade, as it first settled and naturally belongs here. The railroads have no right to break up the jobbing trade of this city and transfer it to the interior of our own or other states, nor do we think they have the right to so discriminate between large and small shippers as to prevent the latter choosing in what market they will make their purchases.” †

The farmers of the State in general, the millers of Rochester, the grain, flour and coal merchants of

* *Report of the Special Committee on Railroads, appointed under a Resolution of the Assembly, February 28, 1879, to investigate Alleged Abuses in the Management of Railroads chartered by the State of New York* (commonly known as the Hepburn Committee Report) ; joint letter of Messrs. Vanderbilt and Jewett to the Hon. A. B. Hepburn, Chairman Special Committee on Railroads. Compare also : *Argument by C. M. Depew before the Assembly Railroad Committee against the Railroad Commission Bills and the Anti-Freight Discrimination Bills*, March 9, 1882.

† *The Hepburn Committee Report*. The meaning of this last phrase is that the discrimination in favor of the jobbers in the interior and against the jobbers in New York would enable the former to make such terms as practically to compel the small dealer in the interior to purchase from them.

Compare also : *Argument by C. M. Depew before the Assembly Railroad Committee against the Railroad Committee's Bill and the Anti-Freight Discrimination Bills*, March 9, 1882. “In 1874 Mr. Thurber said to me substantially this : ‘Depew, for years and years delegations came here from the central and western parts of the State demanding *pro rata* (distance tariff) freight bills and all sorts of restrictive legislation upon railroads. You satisfied them by giving special rates to localities and to manufacturers in localities, by which the wholesale business of the city of New York has been transferred to Albany, to Troy, to Buffalo, to Syracuse, to Rochester, to Utica, etc. ; and we give you fair notice, here and now, that having done that to satisfy the State of New York outside the city of New York and succeeded, and having thus driven us out of that business and transferred it to the interior, that we will prove ourselves so much more dangerous to you than they ever dared to be, that you will be glad to give us back that trade, and make your alliance with us.’” Mr. Thurber and Mr. Sterne organized the *Anti-Monopoly League*, the object of which was to give New York City the monopoly of the export, import and jobbing business of the United States.

Buffalo, the lumber dealers of Albany, the commission merchants as well as jobbers of New York City and all other classes of persons whose pecuniary interests suffered in consequence of the great changes which were a necessary incident of the development of our country from an aggregation of States largely separate in economic activity and interest into a national industrial community, were finally organized by the New York Chamber of Commerce and the Anti-Monopoly League. Thus organized, they secured the appointment, by the Legislative Assembly of New York, of the "Special Committee on Railroads to investigate Alleged Abuses in the Management of Railroads chartered by the State of New York," commonly known as the "Hepburn Committee." Before this committee the spokesmen of the farmers appeared to demand that western wheat and western cattle should no longer be hauled to the Atlantic seaboard so cheaply as to injure the vested rights of the New York farmers, by depriving them of the natural advantage which they had enjoyed in the past by virtue of proximity to the market. The lumber dealers of Albany stated that they brought their lumber from the West by way of the Great Lakes and the Erie Canal, and distributed it from Albany by rail. Before the advent of the railways, Albany had supplied New England and the whole Atlantic coast with western lumber. But

*New York State
demands the
Distance Tariff
against the West*

this trade had been transferred to western points, because the railways carried lumber from the West to New England and the Atlantic seaboard at rates little in excess of the rates from Albany to New England. The people of Albany demanded that the rates on lumber from the West to New England and from Albany to New England should be based on the respective lengths of haul by rail. In other words, they insisted that Albany must not be deprived of a trade that had depended on waterways. The Board of Trade of Buffalo asked that the rates on lumber, pork, grain and flour from western points to points in New England and on the seaboard should be no lower than the sum of the rates from western points to Buffalo, and thence to points in New England and on the coast. They joined the millers of Rochester in protesting that the movement of the pork-packing and flour-milling industries to Indianapolis, Chicago, Milwaukee and Minneapolis was not entirely due to the movement westward of the corn belt and the wheat belt. They insisted that under a proper adjustment of rates, on the basis of relative lengths of haul, — that is, a distance tariff, — Buffalo and Rochester would hold their own as pork-packing and flour-milling centres. The Buffalo Board of Trade also objected to the railways carrying grain and flour from western points to points in New York State, such as Binghamton and Medina, at the same rate at which they carried grain and flour to Buffalo,

on the ground that the practice eliminated the middleman at Buffalo, who had been needed when the grain and flour coming from the West by rail had stopped at Buffalo to be transshipped from one railway to the other. Similarly, the Buffalo coal dealers felt aggrieved because the railways had made the rate on coal from Syracuse to Chicago as low as the rate from Buffalo to Chicago, and had put an end to the old established course of trade, under which coal on its way to Chicago was made to pay storage charges and commissions at Buffalo. All of these different interests insisted that it was the duty of the railways as common carriers so to adjust their rates as to keep alive an established trade or industry at a particular place under all circumstances and for all time. Like the Chambers of Commerce of New York State and New York City and the Anti-Monopoly League, with their spokesmen, Mr. F. B. Thurber and Mr. Simon Sterne, "they persistently refused to face the fact that the business of the people of the United States had outgrown the boundaries of the separate states; that the people of the United States had become one in their business enterprises, and a unit in their business activities."* On the contrary, they strove to return to the days before the Civil War, when the legislature of New York ordered that the Erie Railroad begin at a point 25 miles from New York City, in order that New Jersey might derive

* *Hepburn Committee Report*: argument of Mr. C. M. Depew.

no benefit from the road, and when the State of Pennsylvania refused to allow the Baltimore and Ohio to build to Pittsburg, holding that the trade of Pittsburg should go to Philadelphia and not to Baltimore.

The Hepburn Committee, on the whole, indorsed the jealous and narrow spirit of local interest manifested by the complainants who appeared before it, but its common sense saved it from taking the extreme attitude of the people of New York City. It realized that nothing of advantage could be done, for the simple reason that the Pennsylvania Railroad and the Baltimore and Ohio were not subject to the jurisdiction of the State of New York. It saw that, if the State should hamper the New York Central Railroad, over which it did have control, for the purpose of preserving the vested interests of its citizens, the Pennsylvania and the Baltimore and Ohio would transfer to Philadelphia and to Baltimore the trade with the interior of the country.

In the decade from 1850 to 1860, when the struggling people of the West were beginning to reap the benefit of the competition between the railways and the Erie Canal, two governors of New York and a number of committees of ways and means of the Legislature proposed to protect the canal, by imposing upon all freight carried by rail a toll equivalent to that collected from the traffic on the canal. They

argued that, if the railways were allowed to destroy the earning power of the canal, it would be necessary to impose additional taxes. They described as "a system of disparity and injustice unparalleled in the annals of trade and commerce, such as none of the most despotic monarchs of the world have ever dared to inflict on their own people," the practice under which the railways charged less per ton per mile on freight carried from the West to the seaboard than on freight carried from points in New York State to the seaboard — that is, the departure from the distance tariff. This onslaught upon the New York Central and Erie railroads constituted one of the most embittered political fights ever waged in the State. It lasted for years, and was maintained chiefly by the owners of canal boats, by millers, by traders and by middlemen of all kinds, who foresaw that they would be displaced unless the railways should be forced to make the same rates per ton-mile on through freight as on local freight—that is, should be forced to adopt the distance tariff.*

Since 1870 the competition between the rival railways leading from the rival primary grain markets in the West to the rival export cities has been beyond all comparison the most powerful factor in reducing the railway charges on the haulage of grain, as well as the commission and storage charges to which

*Competition of
Atlantic Ports
reduces Railway
Rates*

* H. V. Poor: *Manual of the Railroads of the United States*, 1881.

grain is subjected in passing from the farmer in the West to the consumer in the South, on the Atlantic coast and in Europe. Had the claims of New York City respecting an indefeasible monopoly of the export and import trade been capable of enforcement in any degree, by so much would the millions of people who opened up the interior of the United States by tilling the soil have been deprived of the inestimable boon of a constant reduction in the cost of getting their produce to the consumer hundreds and thousands of miles away. What it would have meant, if the city of New York could have had its way through the State Legislature, one can picture by recalling the statement of the late Mr. Sterne, "The mere reduction of transportation charges is not necessarily a benefit to a trading community. . . ." New York City regarded as a part of the natural order of things that the western trade should come to its doors, and proposed simply to collect toll on it. It was Baltimore, the interloper, that established in 1874 the first stationary grain elevator on the Atlantic coast, and thereby reduced the charge per bushel for the receiving, weighing, wharfage, storage and delivery of grain from 4 and 5 cents to $1\frac{3}{4}$ cents, and in addition reduced the time of loading vessels from 5 or 10 days to as many hours.* It was Maryland that exempted from taxation for all time the Baltimore

* Compare the leading article in *Journal of Political Economy*, September, 1897.

and Ohio Railroad. It was New York City, on the contrary, in its corporate capacity, that turned to money-making uses the gift from the State of the land under water bordering the water front, and took no heed of the effect of that policy on the trade of the city;* and that, moreover, allowed the city docks and wharves erected on this land to become the prey of politicians. Among other things, "bad city government" and "insufficient and expensive terminal facilities," it was maintained by those who inquired into the matter, "made New York the most expensive city in the world in which to do business."† And again, competent authority asserted, "the long monopoly of export which New York has enjoyed has made it possible to introduce and maintain a rate of taxes for handling and merchants' dues at the terminus such as would have been impossible, had the competition of the other ports been sharper. It is conceded, we believe, that New York takes larger tolls than any other port out of the grain exported; and the grain merchants find it very difficult to reform this. The business is old; the methods of doing it long established; a large number of influential people are interested in preserving every tax on the grain, and there is much greater difficulty in combin-

* Letter of W. H. Vanderbilt to Charles S. Smith, Chairman of the Chamber of Commerce of New York, in *Report of the Committee on Railroad Transportation*, etc.

† *Report of the Committee on Railroad Transportation of the Chamber of Commerce of the State of New York* for February 28, 1878.

ing to introduce a reform than when the business is comparatively new and abuses are less firmly rooted."*

During the period from 1850 to 1860 the management by the State of the Erie Canal was corrupt and inefficient, and in the following ten years it became worse. One of the main reasons, indeed, why the railways gained so rapidly on the canal from the middle of the sixties onward, was the frequent breaks in the canal, and the consequent blocks to traffic: "one never could tell when freight would arrive."† Even from 1870 to 1880 the canal continued to be operated primarily as a part of a political machine. Little was done toward remedying this abuse and others; but the Chamber of Commerce of New York City organized a kind of drag-net campaign, gathering up all persons with a real or fancied grievance, and through the political power thus made up of heterogeneous elements sought to force the New York Central into an attempt to impede the growth of trade at Baltimore and Philadelphia.

New York has not been the only State which has sought to regulate railway rates in a protectionist direction. To mention only a few examples from

* See the article entitled *Grain Transportation and Exports* in *The Railroad Gazette* of February 23, 1877.

† Mr. Conrow and Mr. W. G. Raymond in *Transactions of the American Society of Civil Engineers*, December, 1901. Compare also: Mr. W. J. McAlpine's testimony before the New York Chamber of Commerce, reported in *The Railroad Gazette*, June 14, 1873.

other parts of the country may be worth the while.

*State Commissions
regulate Railways
to protect State
Industries* Thus, as early as 1874 the Iowa Legislature fixed the rates on lumber with an eye to favoring the lumber dealers of Davenport, Dubuque and

Clinton, at the expense of the Chicago dealers.* Of late years the Iowa State Railroad Commission has repeatedly fixed railway rates with a view to affording protection against neighboring States. In its report for 1891, for example, it announced with pride that, in consequence of the rates it had made, hay and corn raised in northern Iowa were being sold into the dairy counties of southern and eastern Iowa at better prices than formerly. These latter counties had previously bought much of their hay and corn in Chicago: in the words of the Commission, they had "paid tribute to Chicago."† The State Railroad Commission of Illinois, in turn, has fixed rates on canned goods, sugar, coffee and similar articles with an eye to protecting the Illinois jobber.‡

South of the Ohio and the Potomac, State Railroad Commissions have engaged rather extensively in the practice of establishing a disguised system of protection through the regulation of intra-State rail-

* *The Railroad Gazette*, March 24, 1876.

† For many other instances of this same spirit, see F. H. Dixon: *State Railroad Control*.

‡ *Report of the Industrial Commission on Transportation*: testimony of Mr. A. J. Vanlandingham, Commissioner of the St. Louis Freight Bureau.

way rates.* The State Railroad Commission of Texas, to speak of one case only, has repeatedly warned the railways leading into Texas that it would meet any undue reductions of rates into Texas on articles manufactured in Texas, or sold by Texas jobbers, with reductions in the intra-State rates; and it has actually made many reductions in rates with the avowed object of assisting the State manufacturers and jobbers. Again, even within the State, the doctrine that each locality has a prior claim to the trade of its neighborhood has received substantial support. Upon its establishment the Texas Commission found in force over that part of Texas lying to the east of a line drawn from Corpus Christi to the northwest corner of the State a modified scheme of "postage stamp" rates, under which there was but one rate on shipments over distances upward of 187 miles. This system the Commission sought to replace, so far as it could do so without disturbing the established course of trade to such an extent as to endanger its own existence by arousing local jealousies, with a system of mileage rates. The Commission disapproved postage stamp rates, on the ground that in the competition for any market these rates placed manufacturers and producers on the same footing without reference to the distance from the market. Mileage rates, on the other hand, con-

* *Loco citato*: testimony of Mr. J. M. Langley, representative of the Merchants' Association of New York.

served to each manufacturer and producer the advantage to which his proximity to the market entitled him.*

But just here the Texas Commission met with a stumbling-block. So long as the question was one between the rival claims of a Texas town and some "foreign" town, such as St. Louis, whose inhabitants have no votes in Texas, the task was an easy one. An axiom was always at hand to support the decision in favor of the Texas town: to wit, that a country merchant can get better credit at home than abroad, and therefore it is for his interest, and the public interest, for him to buy of a Texas jobber rather than of a St. Louis jobber. But when the dispute was between two Texas towns, local jealousies occasioned the Commission "much labor and anxiety." That body was obliged in the end to announce that, "rate-making not being among the exact sciences, no uniform rules can be laid down for the government of rate-making authorities . . . ;" that "it is, therefore, a delicate task to undertake the determination of issues with no sign-board to mark the way of the investigator, and no guide to the right except conscience and a determination to mete out justice as one may be able to see what is just and right." It even admitted that the competitive conditions were among the controlling factors in the making of rates. It said that the interests of the producer were best pre-

* *Annual Reports of the Railroad Commission of the State of Texas.*

served under the maintenance of competition between towns and between railroads; and that the interests of the public demanded that rates be made in all cases so as to permit carriers "to participate in the traffic of any locality reached by them." "Rates, to be of advantage to the public, must in all cases be made so as to permit carriers desiring to do so to participate in the traffic of any locality reached by them. In pursuance of this policy, rates (fixed by the Commission) are sometimes made lower at given points on the same line than they are at intermediate points."

In this matter of the relation of rate-making to local interests there is protection and protection.

Railways regulate Rates to promote Freedom in Trade

Each railway, it is true, seeks to build up the industries and the trade of its own territory, just as State commissions seek to build up the industries and the trade of their respective States. But the spirit and the basis of operation are different. Railway systems are laid out in accordance with the natural resources and channels of trade over large areas; they include or traverse numerous States, whose boundaries were drawn with no reference to natural divisions produced by trade routes or by differences in the character of soil or climate. State commissions, under the exigencies of politics, apply the principles of protection in a narrow and uncompromising spirit. With them assistance to home industry or home trade is practically the only consideration; with the rail-

ways it is but one of many conflicting considerations between which a compromise has to be effected. State commissions are characterized by a lack of regard for the interests and claims of neighboring States; but railway systems are obliged to consider the claims of the rival systems in other territories. In short, State commissions foster trade and industry in a narrow spirit, and according to the accidental limitations of State lines and State interests; the railways foster them in a more liberal spirit and according to comprehensive lines laid down by the prime forces of commerce. In many cases (examples of which might be given) the difference lies between negative acts which hinder some one from doing something and positive acts which assist some one to do something.

“Live and let live” is the rule and practice of private business and the common law. That principle was enforced upon the States of our Union, so far as interstate commerce is concerned, when the national Constitution was adopted. Had it been otherwise, the burdens of the great revolutionary changes in our industrial development would not have been borne, as they have been for the most part, in silence. Had it been otherwise, the growth of population of the country as a whole (especially through the expansion of the West) would have been less than it has been, and the free-trade market afforded our manufacturing industries would have

been correspondingly decreased. To appreciate the force of this last contention, one must remember that the leading advantage which the American manufacturer has over the British and German manufacturer is the size of his unimpeded home market. It is because the American manufacturer can manufacture without let or hindrance for more than 75,000,000 people, using the same sorts of commodities, that he can conduct his operations on a scale which appears stupendous to his European rival and can thereby secure economies which the latter cannot hope to attain.

Indeed, the great and peculiar advantage which all industrial classes in this country enjoy in contrast to the people of Europe — by force of long usage, a sort of “natural” advantage — is our absolute free trade from ocean to ocean. In Europe, the “West” is eastern Prussia, Hungary, Roumania, Russia and Siberia; while South Germany, the Rhine Provinces, France, Belgium and England form the “East.” But East and West are divided by customs barriers. Under the growing fervor of latter day patriotism, the different nationalities of Europe are engaged every now and then in tariff “wars” — in “mutually oppressing each other’s industry.” And this is not all. Although within Russia and the German Empire there are no barriers erected by means of customs duties, there are other barriers — and sometimes absolutely exclusive ones, as we have seen — erected

by means of manipulation of railway rates. Our railway rates under private control are also manipulated, but from different motives and with different results. In Europe those who are hurt by progress get the rates under government control adjusted in the direction of impeding the general development of the community. Here there is eternal vigilance, ceaseless effort, on the part of hundreds of traffic managers with a free hand, directed to making things move on — to developing the traffic, to causing two blades of grass to grow where one grew before. There the effort is just as constantly made by centralized rate-making authority to meet the predominant political "pull," to protect vested interests, to keep things in the *status quo*. Europe marvels at the stupendous growth of the United States. We take it for granted; and, being badly advised, blindly propose national legislation on the European model.

CHAPTER III

THE WORKINGS OF COMPETITION

IN 1872 the Lake Superior and Mississippi Railway was opened from St. Paul and Minneapolis to Duluth, thus giving to the region embracing the northern part of Wisconsin, all of Minnesota, a part of Iowa and the territory to the westward an additional outlet to the Atlantic by way of the Great Lakes. President Mitchell, of the Chicago, Milwaukee and St. Paul, waged for two years a fierce war on the Lake Superior and Mississippi Railway, for the purpose of preventing it from developing a traffic in grain from Minnesota and points farther west. Rates on grain from the contested territory fell so low that farming land 400 miles west of Chicago became more valuable than land in Wisconsin only 100 miles west of Chicago; and there was a movement of population from Wisconsin to Minnesota. The feeling aroused by this disturbance of values, together with the belief that the Chicago, Milwaukee and St. Paul was keeping local rates high in order to recoup the losses sustained in this rate war, was one of the reasons why the

Granger legislation of Wisconsin, in 1874, was so much more drastic than the similar legislation of the neighboring states.*

About ten years after this the trans-Mississippi Northwest was provided with a second road running to Duluth, built under rather remarkable circumstances. The St. Paul, Minneapolis and Manitoba, which later became a part of the Great Northern, was begun as a St. Paul road. As such it was handicapped by the fact that it depended for an outlet to the East upon the roads leading from St. Paul to Chicago. In 1880 it tried to emancipate itself by shipping grain to New Orleans by the Mississippi River, but the effort proved unsuccessful. A few years later, in 1883, Mr. James J. Hill decided to move the starting-point of his railway from St. Paul to Duluth, with a view to getting an outlet to the East by way of the Great Lakes.† The scheme hardly promised well; for Duluth had never recovered from a reverse which it had suffered in 1873, and in the census of 1880 it had possessed only 3500 inhabitants. Moreover, at this time, 1883, the owners of vessels upon the Great Lakes had become discouraged, the railways having

* A. B. Stickney: *The Railway Problem*.

† *Annual Reports of the Trade and Commerce of Duluth, Minnesota, for the Years ending December 31, 1887-97; The Railroad Gazette*, September 28 and October 5, 1888; February 8, June 7 and 21, and December 27, 1889; and *Decisions of the Interstate Commerce Commission*, Vol. II, *In the Matter of the Chicago, St. Paul and Kansas City Railway Company*.

gained constantly upon the lake vessels since 1875.* Nevertheless, the President of the present Great Northern system went ahead with his plans and by 1888 had transferred the point of origin of his railway system from St. Paul to Duluth. In 1887 he established the Northern Steamship Line, with six vessels of 2700 tons' capacity, and thus secured an outlet to Buffalo during the months in which the Lakes are open for navigation.† In the following year, 1888, the Duluth, South Shore and Atlantic — “Duluth's Declaration of Independence” of Chicago — gave the Great Northern a direct all-rail outlet to the East by way of the Canadian Pacific, the Michigan Central and the Grand Rapids and Indiana Railroad. For the purpose of making this latter connection, the Duluth, South Shore and Atlantic built the most powerful ferry-boat in the world — a boat capable of piercing ice three feet thick.

As soon as the Great Northern had thus secured an outlet to the seaboard by way of the Great Lakes

* *Monthly Summary of Commerce and Finance*, June, 1902.

TONNAGE OF AMERICAN VESSELS ENGAGED IN THE COMMERCE OF
THE GREAT LAKES

									TONS
1870	.	.	.	.	.	.	.	.	685,000
1875	.	.	.	.	.	.	.	.	838,000
1880	.	.	.	.	.	.	.	.	605,000
1883	.	.	.	.	.	.	.	.	724,000
1887	.	.	.	.	.	.	.	.	784,000
1890	.	.	.	.	.	.	.	.	1,063,000
1900	.	.	.	.	.	.	.	.	1,566,000

† The steamers in question carried 90,000 bushels of grain, and were called “mammoth” steamers. Ten years later, in 1897, *The Empire City* carried a cargo of 205,000 bushels from Duluth to Buffalo.

and by way of the Duluth, South Shore and Atlantic, it demanded that the rates on merchandise and manufactures from the East to Duluth be the same as the rates from the East to Chicago, and lower than the rates from the East to St. Paul. These demands it based on the fact that the distance by lake and rail was the same from the East to Duluth as to Chicago, and that the distance by rail from Duluth to the Northwest was less than the distance from St. Paul to the Northwest. These demands met with storms of protest from the newspaper press and the merchants of Chicago and St. Paul, as well as from the railways leading from Chicago to St. Paul and Minneapolis. But the demands were ultimately granted; and they brought about most far-reaching readjustments in the trade relations of Chicago, St. Paul and Duluth to the Northwest and the Southwest. The merchants of St. Paul were obliged to establish branch houses in Duluth, and to-day a large proportion of the coal, salt, lime, cement, heavy iron and hardware, sugar and staple groceries distributed from Duluth is handled on account of St. Paul merchants.

At the same time that the Great Northern made itself independent of the railroads leading from the Twin Cities to Chicago, the Minneapolis millers did the same by building the Minneapolis, St. Paul and Sault Sainte Marie. The building of this line to the Lakes, together with the movement northwestward

of the spring wheat belt, developed an enormous trade in flour and wheat from Duluth-Superior and St. Mary's Falls, at the expense of the growth of Chicago's trade in flour and wheat.* Chicago and its railways fought hard to hold their ground in the flour and wheat trade, and they were able to cheapen the rates on outgoing grain and flour because of the remunerative return freight of eastern merchandise into Chicago. But Duluth and its railways in large measure obtained the same advantage by developing with extraordinary rapidity the trade in merchandise from Duluth to St. Paul, Minneapolis and the American and Canadian Northwest.

Meanwhile other changes were going on. The centre of the winter wheat area and the centre of the

** The Grain Trade of the United States and the World's Wheat Supply and Trade.*

	SHIPPED FROM CHICAGO		SHIPPED THROUGH THE ST. MARY'S FALLS CANAL (i.e. from Duluth and Superior)	
	FLOUR Barrels	WHEAT Bushels	FLOUR Barrels	WHEAT Bushels
1881-85 . .	4,478,000	16,729,000	865,000	8,069,000
1886-90 . .	4,742,000	16,545,000	2,198,000	18,627,000
1891-95 . .	4,022,000	29,705,000	6,897,000	40,876,000
1896-98 . .	3,541,000	30,218,000	8,527,000	60,507,000

The wheat trade of Milwaukee has suffered even more than that of Chicago. In 1870-77 Milwaukee shipped more wheat than Chicago, or a little over 18,000,000 bushels a year. At present its shipments rarely rise to 4,000,000 a year.

On the other hand, the receipts of grain and flour at Buffalo rose from an average of 66,000,000 bushels a year in 1881-85, to 120,000,000 bushels in 1890, and to an annual average of 234,000,000 bushels in 1896-99.

corn belt were shifting toward the Southwest, thus increasing the length of haul to Chicago and the East, and reducing the haul to Kansas City, St. Louis and the Gulf ports.

The Chicago Railways fight for Chicago

Contemporaneously the centre of the spring wheat belt moved northwestward, which tended in turn to shift the movement of this sort of wheat from Chicago to Duluth. The railways leading to Chicago had to redouble their efforts to arrest the threatened further diversion of trade to southern as well as northern routes. The means they used was a change in the method of marketing grain. Up to this time grain had been consigned by country buyers to commission merchants at Chicago and had been stored in the public warehouses, paying commission charges and storage charges. The railways now made regulations under which grain could be billed through from points west of Chicago to New York, with the option of being offered for sale on the track in Chicago. If sold, the grain paid the local rate to Chicago; if not sold, it could be reconsigned to any person in New York, Philadelphia or Baltimore. Twenty-four hours were allowed for inspection and sale on the tracks in Chicago, and 72 hours for sale and removal. In this way it was made possible to avoid the payment of warehouse charges in Chicago, to reduce from 3 weeks to 3 days the time occupied in transfer, and to give the shipper in the interior the benefit of the through rate to the Atlantic

coast, which was 2 cents per 100 pounds less than the local rate to Chicago, plus the rate from Chicago east.

These improvements in handling the grain traffic made by the railways leading to Chicago were, however, soon imitated by the rival roads leading to Duluth, St. Louis, Kansas City and other points; and, accordingly, in 1890, the Chicago roads adopted further measures to carry on the fight. They made arrangements whereby the owners of the public warehouses at Chicago became buyers and sellers of grain, charging for their services much less than the combined commission charge and storage charge formerly collected. These warehousemen and dealers in grain, acting in their new capacity, have enormous capital and do a large volume of business on a narrow margin. The savings which they can make allow them to become formidable competitors for grain that under the old methods of doing business would go to the markets to the northwest and to the south of Chicago. In other words, the former commission merchants at Chicago have been displaced, or are being displaced, in order that the new order of warehousemen may act in effect as freight solicitors for the railways leading to Chicago and secure to them a part of the traffic that otherwise would go elsewhere. The competition between these grain dealers, acting for or representing rival railways, is much keener than was the competition between the former buyers who shipped to Chicago for sale on commission; and the

cost of getting the grain from the producer to the consumer has been correspondingly reduced. And this is to the advantage of the producer. The difference between the farm price of wheat and the Chicago price is materially less than it was 15 years ago.*

Since 1890 or thereabouts, the Illinois Central Railroad and a number of roads leading from Kansas, Missouri and Nebraska to New Orleans, Galveston and other Gulf ports have been making great efforts to divert a part of the export and import trade of the Central West and Southwest from the Atlantic to the Gulf.† That means, of course, a breaking away from the old channel of trade by way of Chicago and

* *Report of the Industrial Commission on the Distribution of Farm Products*, pp. 7-10 and pp. 70-77; and *Report of the Industrial Commission on Agriculture and Agricultural Labor*, pp. 295-300.

† *Report and Opinion of the Interstate Commerce Commission in the Matter of Differential Freight Rates to and from North Atlantic Ports*, April 27, 1905.

Proportion borne by the exports of wheat and corn from New Orleans and Galveston to the total exports of wheat and corn from the Atlantic and Gulf ports.

	WHEAT		CORN	
	New Orleans	Galveston	New Orleans	Galveston
	Per Cent	Per Cent	Per Cent	Per Cent
1889-90 . .	5.1	....	16.2	....
1891-95 . .	10.7	0.6	11.9	0.6
1896-1900 .	10.0	10.5	13.5	3.0
1901 .	16.5	10.6	13.2	....
1902 .	12.9	9.2	15.2	6.0
1903 .	14.0	23.4	15.0	4.8
1904 .	8.8	16.7	14.0	7.8

counter efforts to prevent it. The grain grown in Missouri south of the Missouri River, in the southern half of Kansas and in the territory south of these two States will hereafter inevitably be exported much more largely by way of the Gulf ports. But the grain grown in northern Kansas, southern Nebraska, southwestern Iowa and northwestern Missouri will for a long time be keenly "contested" traffic, going now by the one route, now by the other. Similarly, the traffic originating in Europe or on the Atlantic seaboard, and destined for the Central West and Southwest, will be the object of an intense rivalry between the railways leading from the Atlantic and those leading from the Gulf ports.

The rate to the eastern seaboard on grain from points west of the Mississippi River consists of two parts: the local rate to the river and the through rate thence to the Atlantic. Nominally the through rate from the river is always 116 per cent of the through rate from Chicago, because the distance from the river is 116 per cent of that from Chicago. On wheat destined for domestic consumption, this ratio of the rates from the Mississippi River and from Chicago has always been fairly well maintained; but on wheat for export it has often been ignored. Since 1893 the divergence between the rates on grain for domestic consumption and on grain for export has become each year wider and wider. In 1898 the Atlantic seaboard lines made the published rate on

wheat for export from the Mississippi River the same as the rate from Chicago; and in 1899 they lowered the Mississippi River rate to 85 per cent of the Chicago rate. Under that arrangement, grain for export paid $13\frac{1}{2}$ cents per 100 pounds from the Mississippi River, and 16 cents from Chicago; while grain for consumption in the East paid $17\frac{1}{2}$ cents from Chicago, $20\frac{1}{2}$ cents from the Mississippi if it came from west of the river, and $24\frac{1}{2}$ cents if it originated at the river. These discriminations in favor of grain grown west of the Mississippi River arose from the fact that the competition of the Gulf roads did not extend to grain grown east of the Mississippi River.

The Atlantic seaboard roads made, during the years 1898 and 1899, a final but unsuccessful effort to defeat the attempt of the Gulf roads to divert permanently to the Gulf ports a part of the export and import trade. The actual rates on grain became completely demoralized, although it was a time when the volume of traffic was such that none of the roads had cars enough to accommodate its business without serious delays. Millions of bushels of grain were carried from the Mississippi River to the Atlantic for $7\frac{1}{2}$ cents a 100 pounds, or less than $1\frac{1}{2}$ mills per ton-mile. The New York Central Railroad carried grain from Buffalo to New York City for $1\frac{1}{4}$ mills per ton-mile, or even less, the usual rate having been about $2\frac{1}{2}$ mills.* This competi-

* *The Railroad Gazette*, December 29, 1899, and February 9, 1900.

tion for the grain traffic finally became so destructive that the President of the Chesapeake and Ohio Railroad, who had a reputation for the greatest courage in cutting rates, withdrew from the fight at several competitive points where rates were lowest.

To meet the new conditions of transportation charges, brought about in the first instance by the era

*The Competition
for the Markets
promotes Rail-
way Efficiency* of low prices ushered in by the crisis of 1893 and continued by the rise of the competition of the Gulf roads, the Baltimore and Ohio Railroad made revo-

lutionary changes in its facilities for handling traffic, by reducing grades and curves and putting on heavier rolling stock. The Illinois Central Railroad, on its side, spent several millions upon terminal facilities in New Orleans and brought into play solid train-loads of 2000 tons of paying freight. The New York Central, in turn, strengthened its road-bed in order that it might build "mogul" locomotives capable of hauling train-loads of 2400 tons. As the result of these magnificent economies, the longer the low rates were in force the less complaint there was that they were not remunerative. Even the roundabout roads and those weakest financially adopted many of the improvements introduced by the oldest and strongest roads. In their titanic wrestle the contestants rose like Antæus, after each fall in greater strength. The obvious distributive outcome was the establishment of the claim of the Gulf roads to an increased share of the export and import trade of the country, and

a new basis of adjustment of the charges on grain for export and for domestic use. But there were also effects which do not lie so much on the surface.

In consequence of the unprecedently low price of wheat in the period 1892-95, the area under wheat in the United States fell from an average of 38,200,000 acres for the years 1889-92 to 34,500,000 acres in 1893-96. At the same time the area under corn jumped from an average of 71,000,000 acres in the years 1890-94 to 82,100,000 acres in 1895. The farmers of the Middle West were seeking relief from the low price of wheat in the comparatively high price of meats; they were turning from wheat to corn, which is used for fattening cattle and hogs. But under the stimulus of the rise in the price of wheat which began in the latter half of 1896 the area under wheat again rose from 34,600,000 acres in 1896 to 39,500,000 acres in 1897 and to 44,100,000 in 1898. As a matter of fact, the farm price of wheat receded materially in 1898, but it did not fall fully to the low level of 1893-95, and the great increase in the area under wheat effected while prices were high was maintained.*

* *Statistical Abstract of the United States, 1901.*

	AVERAGE ANNUAL PRO- DUCTION OF WHEAT (in Millions of Bushels)	AVERAGE ANNUAL EX- PORTS OF WHEAT (in Millions of Bushels)		AVERAGE OF THE FARM PRICE OF WHEAT ON DECEMBER 1ST
1893-96	438	145	1893-95	51.3 cents
1897-1900	569	210	1896-97	76.7 cents
			1898-1900	59.5 cents

The area under corn also remained at the high figure reached in 1895, and the question arose whether it would be possible to continue to find at remunerative prices a market for the vastly augmented quantities of corn and wheat.

Just one-half of the increase in the production of wheat effected in 1897-1900 was exported, our exports of wheat rising from 145,000,000 bushels in 1893-96 to 210,000,000 bushels in 1897-1900. Of our total crop of corn in 1893-96, 3.5 per cent was exported; but in 1897-1901, 9.8 per cent was exported, largely because at that time our exporters, taking advantage of poor harvests in Europe, were teaching the European stock-raisers the cheapness and utility of corn as material for fattening cattle. In 1896 and 1897 the price of wheat in Liverpool was well sustained, in consequence of industrial prosperity in Europe, on the one hand, and because of deficient supply, owing to poor crops in Argentina, Australia, India, Russia and the Danubian Principalities, on the other hand. In 1898, however, the foreign situation changed, good crops having been obtained in the countries just enumerated, and the price of grain in Liverpool fell off. Had it not been for the opportune reductions in the cost of carrying American wheat from the farm to the Liverpool steamship, the farmer in the United States would have been hard hit indeed. As it was, the reduction in transportation charges on our railways in part neutralized for the

American producer of wheat the fall in the Liverpool price. The farm price (as already shown) was made more nearly to approximate to the Chicago price, and the Chicago price was brought nearer to the Liverpool price, which latter, whether the Liverpool price rises or falls, means a better position for the American producer of export wheat than would otherwise be possible. This point, as to the effect of reductions of railway rates on the price of wheat, needs to be somewhat further developed.

As the result of the modern means of transportation and communication, together with the modern system of speculation in the great agricultural staples, there is established a world's market-price for wheat at Liverpool — the chief place through which the supply of the surplus wheat-producing countries reaches its outlet, the wheat-deficit countries of western Europe. This Liverpool price is fixed at any time at the point at which total supply and total demand will equalize; and, being so determined, the price at any of the primary markets in the surplus countries is a coefficient of this price. That is to say, the world's market price at Liverpool being established as the resultant of many forces, the local price of wheat in such leading collecting markets as Chicago, Buenos Ayres and Odessa at any time is obtained by deducting from the Liverpool price the cost of transportation, insurance and other charges.

Factors controlling the Farm Price of Grain

With these data for our problem, let us suppose that the total charge for laying down Chicago wheat in Liverpool were suddenly reduced from 40 cents to 30 cents per bushel. This disturbance of the pre-existing balance of forces would, if unresisted, depress the Liverpool price by 10 cents, through hastening and augmenting the movement of wheat from the farm to Chicago and from Chicago to Liverpool. But there would be brought into play certain counter forces which would check the fall of the Liverpool price. On the one hand, the European demand would increase, as the price fell; and, on the other hand, the supply, especially from the other surplus countries besides the United States, would decrease, for the existing stock would be held back. To satisfy the conditions of equilibrium between demand and supply, the decline of the Liverpool price would be arrested at the figure, let us say, of 2 cents per bushel less than the old price which prevailed before the disturbance. Then, as the Chicago wheat merchant could sell in the Liverpool market at only 2 cents reduction in price, obviously the reduction of 10 cents in the cost of access to that market would mean a bonus of 8 cents in his pocket. But this he could not keep for himself. The forces of domestic competition could be depended upon to compel him to hand most of it on to the farmer, and the Chicago market price would rise by nearly 8 cents.

Thus far we have had in view only the temporary effects of a reduction in the cost of transporting wheat from a particular primary market to the general world's market at Liverpool; but the same principles hold good as to the permanent effects. If an exporting country does not increase its acreage after such a reduction, it may keep its higher price and profit indefinitely or until its competitors imitate its improvements. But if it extends its cultivation, — if it takes up the slack of the cheaper means of marketing by augmenting production, — obviously its price will decline and may in time even stand absolutely at a lower figure than ever before. But in either case it is benefited by the lower cost of transportation: it either does the same business at a higher price, or (because it sees fit to do so) a larger business at the same or a lower price.

This whole matter of the division, temporarily or permanently, of the advantage of a new economy in any branch of trade between an exporting and an importing country is highly complicated and in any specific case the proportions cannot be exactly determined before the event. But it may at least be laid down as a general rule that, when several sources of supply are drawn upon by a common market, a particular fall in the cost of transport from one of them will produce more local than central disturbance — will raise the price in the tributary market more than it will depress it in the emporium.

Another way of putting it is to say that, as long as several sources of supply are drawn upon to satisfy the demand of a common market, the price will be determined, apart from variations of the seasons, by the conditions of production in the weakest of them (the "marginal" source), and the advantages which the stronger ones enjoy will be manifested in varying amounts of bonus. Apart from any special inquiry into fact and theory, there is certainly no occasion to assume that a particular reduction of the cost of transportation of wheat by American railways, or Russian railways, or Argentine railways, as the case may be, redounds exclusively, or even chiefly, to the benefit of the European consumer.

In 1899 the Interstate Commerce Commission, upon a complaint made by the Board of Trade of the city of Chicago, investigated the relative rates then prevailing on grain for export and grain for domestic consumption.* It examined the matter on the basis of the respective rights of the producer of grain, those of the domestic consumer (that is, the manufacturer on the Atlantic coast) and those of the railways. The Commission was of the opinion that, unless the lower rates on export grain redounded to the distinct advantage of the producer of grain, they

* *Decisions of the Interstate Commerce Commission*, Vol. VIII, p. 214, *In the Matter of Relative Rates upon Export and Domestic Traffic in Grain and Grain Products, and of the Publication of Tariffs relating to Such Traffic.*

could not be justified; for they subjected the American consumer to a distinct disadvantage, as compared with his competitor, the European manufacturer. On this last point it said: "The foreigner is to an extent in competition with the American. Both are engaged in the production of articles sold in the same market, either abroad or in the United States. If the Englishman can procure the necessities of life cheaper than his American competitor, that gives him the advantage. A few cents per hundred pounds in the price of his flour would not be of itself a matter of great consequence, but the same sort of a preference applied to all articles which enter into his daily support, as well as to the product of his labor, may determine whether he or the American can manufacture for our own market even."

The Commission next considered whether the exceptionally low export rates on grain, the result of the rate war already described, had redounded to the advantage of the producer or not, and whether the railways had been injuring themselves thereby. Its conclusion was: "The American producer has not been materially benefited by them; our railways have sacrificed millions of dollars without producing any real effect upon the flow of traffic, . . . This depletion in revenue has been a donation to the foreigner. It is impossible more strongly to emphasize the folly of this whole proceeding than by the mere statement of it, . . ."

This extraordinary conclusion the Interstate Commerce Commission reached by way of a theory of international markets and prices that *Unsound Economic Reasoning of the Commission* will not bear investigation. It assumed that the statement that American grain was influencing, along with the other factors of supply, the price of grain in the foreign market, was equivalent to saying that the price of grain in the foreign market was the price in the American market plus the price of transportation from the United States to Europe. And this initial error led to the further mistaken notion that the statements of the railway men, to the effect that the exceptionally low rates on export grain had been made because of the competition between the two groups of railways — those leading to the Gulf and those leading to the Atlantic ports — and not because of the state of the foreign market, gave support to the inference that, if there had been no cuts on export rates, the price of grain in the American market would have remained unchanged and the price of grain in the European market would have been higher than it was by the amount by which the export rates had been cut. In short, this body, sitting in judgment on the justification of the course of a large part of the world's commerce, took the relatively fixed market (Liverpool) to be the relatively variable one; it took the market which is determined (Chicago) to be the market which does the determining; and con-

sequently it added the cost of transportation where it should not (to the Chicago price), instead of deducting it where it should (from the Liverpool price), in order to find out what effects were produced — whether the American farmer was benefited or not — by reductions in cost of transportation. The kind of reasoning which the Commission erroneously applied at the American terminus of the international wheat traffic does apply correctly at the European terminus. The price of wheat in the secondary distributive markets in Europe is found approximately by adding the cost of transportation from Liverpool to the Liverpool price. Even the European imports of wheat which do not pass through Liverpool have their price determined upon that basis.

The Commission issued no order in the case just reviewed, because it thought the testimony indicated that the “present disparities between domestic and export rates will not become permanent.” This subject comes up again in another place.

Let us now turn from wheat to two other great staples of the United States — cotton and iron. The problems in markets and rates presented by the cotton-growing industry are similar to those that have arisen in connection with the growing of grain. Cotton is the staple of the one-crop farmer of the South and extreme Southwest, and the great bulk of the crop has to find a market at a great distance from where it is raised. Nearly 70 per cent of American

cotton is exported to Europe, about 20 per cent is sent to the Northeastern and North-Central States, and about 12 per cent remains in the South.* Under rapidly falling prices it has been imperative for the southern planter to have increasing access to the soil best adapted to cotton. This necessary movement of the centre of the cotton belt to the west of the Mississippi River has been made possible by the railways.†

Cotton finds its way to the final market by way of several Gulf and Atlantic coast ports, and by way of a great number of interior points, such as Memphis, Montgomery, Shreveport, St. Louis and Cincinnati. There is scarcely a place on the Atlantic slope and the Gulf slope of the cotton States that does not enjoy the advantage of competition between rival marketing centres and between railways as carriers to those markets, as well as between railways and coast vessels as carriers to northern points of export or consumption. The many-sided struggle between

* *Report of the Industrial Commission on the Distribution of Farm Products.*

PROPORTION OF AMERICAN COTTON CONSUMED IN

	1859	1869	1879	1889	1899
Europe	77%	70%	64%	68%	69%
The North	19.4%	27%	32%	24%	19%
The South	3.6%	3%	4%	8%	12%

† *The Cotton Trade of the United States and the World's Cotton Supply and Trade*, from *The Summary of Commerce and Finance* for March, 1900; and *Report of the Industrial Commission on the Distribution of Farm Products.*

marketing centres, railways and coast steamers* puts the whole movement of cotton under the stress of tremendous competitive forces, to the great advantage of the planter, from the time the cotton leaves the plantation or farm until it reaches the factory in the United States or Europe. It has made the charges on the transportation of cotton among the lowest in the world, has crowded out many middlemen and has greatly reduced the commissions of those who have survived.

But in the cotton traffic, as in all other kinds of traffic, there are constant complaints from persons or localities that are adversely affected by the changes which are necessary incidents of progress. For example, in 1887 the New Orleans Cotton Exchange asked the Interstate Commerce Commission to rule that rates per ton per mile on cotton from points in the cotton-growing district to New Orleans should be no higher than rates per ton-mile from the cotton-growing districts to New York and Boston: † in other

*New Orleans
demands the Dis-
tance Tariff on
Cotton*

* COMPARATIVE MOVEMENT OF COTTON COASTWISE AND OVERLAND

	1858	1878	1888	1899
Total bales moved coastwise and overland	770,000	2,314,000	3,230,000	3,390,000
Per cent moved coastwise	99	81	70	60
Per cent moved overland	1	19	30	40

† *Decisions of the Interstate Commerce Commission*, Vol. II; *The New Orleans Cotton Exchange v. The Cincinnati, New Orleans and Texas Pacific Railway Co.*

words, it asked for a distance tariff. The Cotton Exchange found in the low rates to the North and East the sole reason for the fact that of recent years the receipts of cotton at New Orleans had not exceeded one-fourth of the total cotton crop, whereas down to 1860 the receipts had been not less than one-half of the cotton crop. It complained that the rates in question subjected New Orleans to unreasonable disadvantage, and gave undue preference to New York and Boston. The Commission declined to make the ruling requested, and said by way of *obiter dicta* that the complainant apparently took no account of the comparatively recent construction of several all-rail lines from the cotton fields to the eastern ports and markets. New Orleans was not the ultimate destination of the cotton received. Cotton was sent thither for distribution only—to be forwarded; and the business of distribution was largely directed and controlled by economy in time and cost. Any view was faulty which failed to include the new conditions among the causes influencing the movements of cotton in the past fifteen years. Twelve years later, however, when dealing with the rate disturbances precipitated by the Gulf lines, the Commission made no mention of considerations such as these. It took the position that no changes in the geography of the railroads could justify an impairment of the advantage that Chicago and the State of Illinois had enjoyed over the trans-

Mississippi cities and states before the coming into the field of the Gulf railroads.

The New Orleans Cotton Exchange also complained of the practice of "floating cotton," which diminished the business of compressing cotton and lending money upon cotton at New Orleans. In the early days there were comparatively few places which had cotton-compressing plants, and to those places the cotton had to be brought not only to be compressed, but also to be graded, to receive advances of money or credit and to be reshipped on through bills of lading to its final destination. Subsequently, cotton compresses were established at innumerable railroad stations and small towns, and the roads introduced the practice of "floating cotton." Under this new arrangement cotton can be shipped on through bills of lading to any point, with the privilege of stopping at the nearest station with a cotton compress to be graded and compressed. The counterpart of this practice in the North is "milling in transit." When compressed, cotton commands lower rates of transportation by rail and by water; and when graded, money can be borrowed upon the bills of lading. The practice of floating cotton obviously did away with the former necessity of sending cotton to New Orleans, Memphis and other dominant primary cotton markets, for the purpose either of having it compressed or of borrowing money upon it. It interfered with old-established interests and

led to several complaints before the Interstate Commerce Commission.*

The Railroad Commission of the State of Texas, in turn, looks askance at the low ton-mile rates on cotton from points in Texas to New-
Texas seeks Indi- port News, Baltimore, Philadelphia,
rectly to regulate New York and Boston. It contends
Interstate Com- that the Texan Gulf ports are the nat-
merce ural route for Texan cotton, and that the low ton-mile rates to the Atlantic seaboard "force commerce out of its natural channel and prevent the building up of commercial cities on our [Texan] coast, thus depriving the State of its legitimate commercial advantages, and of the wealth and revenues which would result from allowing the commerce to go by the cheapest line of transportation." For some time after this Commission was established, it entertained the idea of prescribing uniform mileage rates for the transportation of cotton carried as intra-State traffic; but when it found that its scheme would not merely affect New York and Boston, but would "revolutionize the commercial map of Texas so far as the cotton trade was concerned," and would bring down on the Commission itself a storm of local protests, it abandoned the project † so far as intra-State traffic

* *Decisions of the Interstate Commerce Commission*, Vol. VIII, *In the Matter of Alleged Unlawful Rates and Practices in the Transportation of Cotton by the Kansas City, Memphis and Birmingham Railroad Co., and Others*, March, 1899.

† *Third and Fourth Annual Reports of the Railroad Commission for the State of Texas*, for the years 1894 and 1895.

is concerned. But the Commission comparatively recently has warned the railways not to carry cotton too cheaply to New Orleans and other "foreign" ports, lest the Commission be obliged to punish them by using its power to fix rates on intra-State traffic in such a way as to reduce seriously the earning power of the railways.

In those southern States in which cotton manufacturing has been established * the belief is rather common that the low through rates on cotton shipped to the North, for export or domestic consumption, cause the railways to keep the local rates high and thus injure the southern mills. This belief is the more strongly and commonly held inasmuch as in some instances the rates from primary collecting points to southern consumption points are absolutely higher than the rates to northern points. In 1900, for example, the rates on cotton from Memphis to Boston and New York were respectively $55\frac{1}{2}$ cents and $57\frac{1}{2}$ cents; whereas, at the same time, the rates from Memphis to the mills in the Carolinas were $59\frac{1}{2}$ cents. One reason for this anomaly was that competition for traffic to Boston and New York was keen, owing to the fact that the overland traffic in cotton to northern points was carried largely in cars that had brought general freight south and had to carry cotton or return empty. Another reason was that the northern roads threatened a rate war, if the southern roads

* Compare foot-note on p. 268.

lowered their Memphis-Carolina rates to correspond with their own. But still a further reason, and the chief one, was that the railroads leading to the Carolina mills were loath to reduce the through rates from Memphis, because they feared the reduction would be used against them, by public opinion and State railroad commissions, to compel a lowering of the local rates on cotton from points near at hand.* As they are not financially strong, the southern roads do not feel justified in making reductions in local rates which would not meet with quick response in growth of traffic, thus speedily compensating them for the initial loss in revenue from the direct effect of the reductions; and what they do not care to do at their own discretion they naturally do not like to have forced upon them. This subject of through and local rates on cotton hauled to the southern mills we shall discuss again.

The history of the iron industry in the United States affords several striking examples of changes which meant the building up of property values and business interests in one region and a slackening in their rate of growth, or even in some cases their complete destruction, in another. It suggests in a striking

* See *Report of the Industrial Commission on Transportation*, Vol. IX, testimony of Mr. J. S. Davant, Commissioner of the Memphis Freight Bureau; also the testimony of Mr. S. C. Dunlap.

ing manner how the development of this country would have been paralyzed, had we entered upon the federal regulation of railway rates at the close of the Civil War, and had we thus been drawn into the conflict of sectional interests into which Germany has been drawn—a conflict which would ultimately have forced the Government of the United States, as it has forced that of Prussia, to announce that it could not adjust rates in such a way as to give free play to the natural advantages possessed by one place or region over another in the production of iron and steel, lest the Federal Government be charged with preferring one region to another.

The first of the changes in the iron and steel industry—a phase of the progressive shifting of the industry from East to West—came about through the substitution of anthracite coal for charcoal in the smelting of iron ores. The anthracite process was introduced in the last years of the thirties and in the early forties. Among other early effects of this change in the industry was the passage of the tariff bill of 1842, materially raising the protective duties on iron, which resulted in the erection of many new charcoal furnaces, most of which had to be abandoned a few years later.

The second revolutionary change in the manufacture of crude iron came about through the substitution of bituminous coal (in the form of coke) for

anthracite.* This substitution was primarily the result of the greater cheapness and effectiveness of new processes of smelting by means of coke, but it was powerfully furthered by the movement of the centre of population to the west of the Appalachians, where were situated the great deposits of coke-making bituminous coal, and by the active competition of mine owners and railways in opening bituminous coal lands and marketing their products. "The use of soft coal which had begun before 1860 became rapidly greater. Already in 1872 it was important; and from year to year it grew. In the periodic oscillations between activity and depression, which mark the iron trade more distinctively than any other industry, anthracite iron shrank sensitively in the slack periods, and barely regained its own in the succeeding periods of expansion. Bituminous or coke iron, on the other hand, held its own during the hard times, and advanced by leaps and bounds with each revival of activity. In 1875, for the first time, its output exceeded that of the rival eastern fuel, and since that date the huge advance in the iron product of the United States has been dependent on the use of coke."†

While the displacement of the anthracite iron of eastern Pennsylvania by the bituminous iron of west-

* This discussion of the later changes in the iron industry of the United States is based upon Professor F. W. Taussig's articles in the *Quarterly Journal of Economics* for February and August, 1900.

† Taussig, Art. I, p. 146.

ern Pennsylvania was still going on, two new iron centres were arising, one farther West and one in the South. As a result of the development of the vast steel-making ore deposits of the Lake Superior region and of the foundry iron deposits of the South, the iron and steel industry of the Pittsburg district (though it benefited most of all) was compelled to share with rivals the growing trade of the country. From 1880 to 1898 the pig-iron production of Ohio, Indiana and Illinois increased from 730,000 tons to 3,352,000 tons; that of Alabama, Georgia, Tennessee, Virginia and Maryland from 238,000 to 1,785,000 tons; that of western Pennsylvania from 772,000 tons to 4,435,000 tons. During these same years the output of pig iron of eastern Pennsylvania, New York and New Jersey, of late years smelted by a mixture of anthracite and coke, declined from 1,610,000 tons to 1,431,000 tons.*

The next important change in the American iron industry took place, as regards the mining side alone, in the Lake Superior iron region itself. As late as 1890 what is now known as the Mesabi iron field was "a trackless waste." In that year the Marquette, Gogebic and Vermillion fields produced 6,720,000 gross tons of ore, mostly suitable for making Bessemer steel. The first of these fields had been exploited on a considerable scale from 1873 onward, the second and third from 1884. Besides these fields

* Taussig, Art. I, p. 164.

of the Lake Superior iron region proper, there is the Menominee field, farther to the eastward and nearer the lake than the others, but producing for the most part ores not of Bessemer quality. Its output in 1890 was 2,282,000 tons. In 1892 the Mesabi fields were opened by a railway from Duluth, and by 1895 they had distanced all the neighboring rivals. Mesabi ores are about half of Bessemer quality, are mined in open cuts by steam shovels, and have a haul of about 100 miles to the lake. During the depression following the crisis of 1893, the output of the Marquette and Gogebic fields fell off, as compared with 1890, from 5,840,000 tons to 4,646,000 tons in 1895; while that of the Vermillion range rose from 880,000 tons to 1,079,000 tons, and the output of the Mesabi range mounted from 600,000 tons in 1893 to about 1,800,000 tons in 1894 and to 2,781,000 tons in 1895.*

It is one of the surprises of American industry for foreigners that iron ore should be converted into pig iron and steel, and steel should be fashioned into rails, bridges, plates, wire, nails and structural forms for building at Chicago, Joliet and Milwaukee — places with no strictly natural local advantages. But these places have easy access to important western markets; and the railways, supplementing the lake steamers, are as ready to make them the meeting-places for Lake Superior ores and western Pennsylvania coke as they are, on the other hand, to

* See Taussig, Art. I, p. 152.

haul the ores from the Lake Erie ports to the coke of the Pittsburg district. "Whether the ore goes to the coal or the coal meets the ore halfway, one or both must travel a long journey by land as well as by water. One or both must be laden and unladen several times. A carriage of 800, 900 or over 1000 miles must be achieved, with two separate hauls by rail. Fifty years ago, even twenty years ago, it would have seemed well-nigh impossible to accomplish this on a great scale and with great cheapness. The geographical conditions on which a large iron industry must rest were supposed by Jevons, in 1866, to be the continuity of iron and coal. But here are supplies of the two minerals separated by a thousand miles of land and water, and nevertheless combined for iron making on the largest scale known in the world's history."*

Contrast the elasticity and adaptability of the American system of transportation, which permits such stupendous changes, with the German system. Recall the fact that since 1886 the Prussian Government has refused to make rates that would allow the iron ores of Alsace-Lorraine to move freely to where the best coking coal is produced, and that consequently, of late years, the iron industries of the Ruhr district have had to draw more and more upon the deposits of Spain and Sweden coming by water. Nor are the railways in Germany permitted to carry coke

* Taussig, Art. I, pp. 154-155.

freely to the ores. The man who should propose to let the Ruhr coal and the Swedish ores meet at Hamburg, or the Swedish ores and the Silesian coal meet at Danzig, would probably be looked upon as a most dangerous innovator — a public enemy bent on dissipating the State revenue and on subverting established industry.

Let us ask ourselves again what would have happened to our steel and iron industry and to our politics, had the Federal Government been dragged into the question of what are relatively reasonable rates on coke from Connellsville, Pa., to Joliet, Ill., and on iron ores from the Lake Superior region to Connellsville. That is precisely the parallel of the question that for twenty years has hampered the development of Germany's steel and iron industry.

Speaking of the rail part of the work of assembling iron-making materials in the United States, Professor Taussig has said: "What has been done for grain, for cotton, for coal, for all the great staples, has been done here also, and here perhaps more effectively than anywhere else; the plant has been made larger and stronger, the paying weight increased in proportion to the dead-weight, the ton-mile expense lessened by heavier rails, larger engines, longer trains, and easier grades, the mechanism for loading, unloading, transshipping, perfected to the last degree, or to what seems to be the last degree until yet

*The United States
escapes Germany's
Unhappy Ex-
perience*

another stage toward perfection is invented. And evidently here, as elsewhere, the process has been powerfully prompted by unhampered trade over a vast territory, and the consequent certainty that costly apparatus for lengthened transportation will never be shorn of its effectiveness by a restriction in the distant market.* . . .

“And this [the improved transportation] has been probably the one single cause which has counted for most in promoting the growth of the iron industry. Through it that industry in the United States, so far from having to deal with obdurate and limited fuel, and ores of no special excellence, has been able to bring together unlimited supplies of both materials on easy terms and in perfect quality. How much such easy command of proper materials tells is shown by the growth of the iron manufacture in Alabama and the adjoining southern region. Here the close contiguity of coal and iron has caused a great industry to develop with extraordinary rapidity, in the face of difficult social conditions and of the competition of the strong and comparatively old industry in Pennsylvania. The cheapening of transportation has given Pennsylvania herself the equivalent of contiguous ore and coal, and has been the main factor in promoting the advance of her iron industry also.”†

A further aspect of the whole subject is freedom

* See Taussig, Art. I, p. 157.

† Art. II, p. 486.

and rivalry in marketing the iron product. After the materials are assembled and converted into crude iron and steel, the leading centres of the industry sell into all parts of the country, for the whole country (with some minor reservations) is one great common market for them all. In Germany, on the other hand, each of the three leading iron-producing centres has practically its own local and exclusive market. The reason has been made abundantly plain. If the manufacturer of iron and steel in Alsace-Lorraine would sell into northern and eastern Germany, he must, as it were, send his product out by the back door — he must ship it by way of the French and Belgian canals to the North Sea and thence to the Baltic.

That similar conditions might exist in the United States also, were it not for the Constitution and the courts, is perfectly possible. We are *American Politics* not to take our free trade in iron *not unlike* and steel and their constituent materials for granted, even in the absence of internal customs barriers. We have other light upon the matter besides the experience of Germany. It is notorious that our external customs barrier has been manipulated by some domestic iron interests with a view to hampering others. Such conflict of interest has been strikingly set forth by Professor Tausig: —

“At Sparrow’s Point, near Baltimore, one of the

great steel companies [the Pennsylvania Steel Company] has erected large works, where iron and steel are made from ore brought in cheaply by sea from mines owned by the company in Cuba. The coal comes from the Appalachian chain, chiefly from the Pittsburg region, meeting the ore halfway, as is the case with the Ohio and Illinois works in the Central region. The representatives of this company have pleaded strongly for free ore before Congressional committees, and of course have met the opposition, hitherto successful, of the Lake Superior mine owners. . . . The effect of this part of the iron duties is perfectly simple. The Lake Superior ore made its way farther eastward than it would otherwise have done. The Cuban and other foreign ore was handicapped by just the amount of the tariff tax, and the iron-master near the seaboard had to pay so much more for this part of his material. . . . Had Cuba been a part of the United States, its mines would have been welcomed as enriching the natural resources of the country; but, being outside the pale, the persons owning the Lake Superior mines were able to bolster their opposition to this particular competition by the appeal to national prejudice. Had the Mesabi and Vermillion mines on Lake Superior been a little on the Canadian side of the border, instead of being just on the American side, a very effective fight against them would have been made on the same ground — and who can say with what

outcome? — by the owners of the other mines on the lake.”

It is by no means necessary in the United States for a source of supply to be on foreign soil and subject to the play of “national prejudice,” in order to have the spirit of protectionism invoked against it. Manufactures produced in the East and marketed in California, Oregon and Washington are made and sold under the same flag. Nevertheless, it is a matter of common report that the Pacific coast manufacturers desire to get a member of their own on the Interstate Commerce Commission, in order, if possible, to regulate the westward transcontinental rates to their pecuniary advantage. Instances of this sort in different parts of our country can be multiplied. Some of them have been given, and others will appear as we proceed. The fact is that in every large country there is a constant tendency toward interprovincial protection, which is effectually counteracted only by the absence of opportunity for realization. If it were possible under our Constitution to have interstate revenue imposts on commerce, they would certainly have been made protective, as well as revenue-raising, long ago. Interstate charges for the transportation of goods on the railways we must have; but to keep them non-protective (in the obstructive sense) they must be kept out of politics. This means that they must be kept in business, under private control. In the conflicts of interest which are a necessary incident

of progress, few men practise a broad and liberal patriotism, when interest affords the incentive and institutions afford the opportunity to do otherwise.

CHAPTER IV

THE ADJUSTMENT OF RAILWAY RATES

THE primary grain markets are those railway centres into which the grain of the surplus grain States is concentrated in the first stage of its movement after leaving the producer. The ten most important ones are Chicago, Minneapolis, Duluth-Superior, St. Louis, Milwaukee, Toledo, Kansas City, Peoria, Cincinnati and Detroit. They are located on the circumference of an irregular circle, inside of which are thousands of shipping-points into which the grain is gathered from the farms. From each of the primary markets radiates a fan-shaped network of railway lines. From Chicago, for example, 21 lines reach southward, westward and northward, over territory in which other roads compete radiating from other primary markets. Twenty-seven systems radiate from Kansas City, ten from Minneapolis, twenty-five from St. Louis and equally large numbers from the other primary markets. The situation is such that the intensity of competition among the grain carriers increases with the distance from the circumference of the circle of primary markets toward the centre of the surplus

wheat-producing area. There is no considerable territory that has not the choice of two or more primary markets. In other words, while the grain of a particular area will usually go to a particular market, it will immediately flow elsewhere, if the price of that market becomes the least bit too low as compared with other markets. A given area may be tributary to Chicago to-day, to St. Louis to-morrow and to Kansas City the day after. This result inevitably follows from the fact that the various primary markets are simply strategic points, through which the distributing or marketing centres on the Atlantic coast, the Gulf, the Great Lakes and the St. Lawrence compete with one another for the partition of the traffic.*

This competition between the primary markets and their several railways, on the one hand, and between the rival export harbors and their several railways, on the other hand, necessitates a complicated division of the traffic. In the first place, the total grain traffic must be apportioned among the primary markets. In the next place, the traffic assigned to any market, say Chicago, must be divided among the lines serving that market — in the case of Chicago, 21 in number. Finally, the grain collected at the primary markets must be apportioned among the rival ports on the

* *Report of the Industrial Commission on the Distribution of Farm Products.* Compare especially the map prepared by the Grain Department of Armour and Co. for the purpose of illustrating the territorial competition among the primary markets.

Atlantic from Montreal to Galveston, and the traffic assigned to each port must be once more divided among the different lines leading to each port.

These divisions of the traffic among the rival market centres and among the railways serving each centre are made upon the basis of the relative ability of the different centres and the different railways to get traffic under the operation of unrestricted competition. It has been not the least of the many surprises of our railway history that our railway managers have been able to gauge the relative strength of rival markets and of rival railways with almost mathematical precision. Rarely, indeed, has the distribution of the traffic, during even the fiercest and most prolonged rate war, differed materially from the distribution during the period of comparative quiet preceding the war. But that does not mean that the questions can always be settled without recourse to a rate war. The conflicts of interest involved between the several railways and — be it not forgotten — the several cities are so fierce that oftentimes nothing but an exhausting contest can settle them.

When the railroads competing for a given traffic have agreed upon the division of that traffic, either with or without a rate war, they adjust the railway rates with a view to making the traffic go to the various points and by way of the several railways, in accordance with the agreed division of traffic. If it should be found that some of the rates have been malad-

justed, they are corrected without delay. The course of the traffic is watched from day to day, and readjustments of rates are continually made to allow for disturbing factors, such as the building of a new line or the improvement of an old one. Oftentimes it proves impossible to make the readjustment amicably, and in that case the point at issue is once more settled by means of a rate war.

The relative rates prevailing on the different railways and to the different market centres are, however, not the sole factors in determining the course of traffic. The energy and success of the merchants at the several markets in bidding for the competitive traffic also are important factors. For example, should the grain dealers at Chicago and Minneapolis combine to restrict their competition for the grain of the territory normally tributary to Chicago and Minneapolis, the price of grain in the territory in question would soon come to be a fraction of a cent out of line with the price in the territory tributary to the other primary markets. Very shortly bidders would appear from St. Louis and Kansas City in the Southwest and Duluth in the Northwest, and the anomaly in price would be corrected. The grain dealer of to-day figures in eighths, sixteenths and thirty-seconds of a cent a bushel.

The story of the collection of the surplus grain at the primary markets and of the subsequent distribution to the consumer upon the Atlantic seaboard, the

consumer at the South and the consumer in Europe
Nice Adjustment is summed up in one word—competition. That competition between rival
of American wheat-growing regions, rival railways
Farm Prices to and rival marketing and distributing
Liverpool Prices centres adjusts the price of wheat upon the farms of the United States to the price of wheat in the world's markets with a nicety not even distantly approached in other countries. The restriction upon competition between markets which is the inevitable result of Government regulation of railway rates—in Germany and Russia, for example—causes the phenomenon of local prices for wheat and other agricultural produce. In such cases prices over large areas, and for comparatively long periods of time, will be out of line with the world's price, simply because of the inelasticity of railway rates.

Upon turning from the marketing of wheat to the marketing of poultry, eggs and dairy products, one finds that Pittsburg, Cincinnati, St. Louis, Kansas City, Chicago and the Atlantic seaboard cities are competing markets for the poultry, eggs and dairy products of the Ohio and the Mississippi valleys. The railway rates from this common territory to these rival markets all have to be adjusted, one to the other. Furthermore, the wholesale prices in these markets all have to be adjusted to one another. For, although certain areas within the region in question are nor-

mally tributary to certain markets rather than to others, each market is a potential bidder, if not an actual bidder, throughout the whole region in question. Any lagging in the adjustment of prices in one region is immediately corrected by more active bidding from the other markets.*

The sources of the live-stock supply of the United States are Texas, Arkansas, Oklahoma, the Indian Territory, Arizona and New Mexico in the Southwest, and Montana, Wyoming, the Dakotas and Colorado in the Northwest. The range cattle from these two regions are fattened and prepared for market by corn-feeding in the great corn belt, consisting of the States of Missouri, Kansas, Nebraska, Iowa and Illinois. They are brought from the range to the farm in the corn-belt by way of the cattle markets at Kansas City, St. Louis, St. Joseph and Omaha. The first two markets are nearest to the southwestern ranges, the last two are nearest to the northwestern supply of range cattle. Each market also has special advantages in reaching some section or sections of the corn belt where corn is fed upon the farms to the range cattle. But each one of these markets has access to each of the ranges, as well as to the whole corn belt, and there is the keenest competition between them for the business of buying range cattle

* *Report of the Industrial Commission on the Distribution of Farm Products.*

and sending them to the farm to be prepared for the block. The distribution of this business between these competing markets depends upon the respective equipments of these markets with railways leading to the ranges and to the corn belt respectively, upon the freight charges prevailing upon the railways in question and upon the prices to be obtained for range cattle in each of the markets.

This competition for the marketing of the range cattle is growing keener as the development of the country proceeds. For instance, the use of certain by-products of the cotton-seed oil industry as cattle fodder is establishing the range cattle-feeding industry and the packing industry in Texas, and thus is adding one more to the number of markets competing for the range cattle. Again, the planting of Kaffir and milomaize in northwestern Oklahoma, the Panhandle of Texas and the Staked Plain is making the latter region into a competitor of the corn belt in the preparation of range cattle for the block. Still again, the growth of population on the Pacific coast and the export trade to the Orient promises to make the Pacific coast a formidable competitor for the cattle of the northwestern ranges.

For the cattle that have been fattened for the block the great slaughtering establishments at Chicago, St. Louis, Kansas City, St. Joseph and Omaha are competitors. In former years the slaughtering establishments on the Atlantic seaboard also were for-

midable competitors. But competition has become so keen in the business of packing beef that it has become comparatively unprofitable to ship cattle on the hoof. Each year the number of live cattle sent to the seaboard for domestic consumption grows smaller, while the shipments of dressed beef from the West grow larger. Even Chicago feels the change and is losing its ascendancy in the packing business, just as it has already lost its ascendancy in the business of shipping to market the wheat and flour raised in the interior of the United States.*

Upon turning from the farming and the live-stock industries to the lumber industry, one finds the same competition for the market, with the resulting need of the adjustment of railway rates between many conflicting interests. In the markets of New England and the northern Atlantic seaboard compete the spruce and the hemlock of Maine, the white pine of Minnesota and the yellow pine of the tier of States ranging from Texas, Arkansas and the Indian Territory in the Southwest to Georgia in the Southeast. In the markets of Ohio, Indiana and Illinois the hardwoods of the Middle West compete with the hardwoods of Kentucky, Tennessee and Alabama. The treeless States of the Middle West are the meeting-

* *The Summary of Commerce and Finance*, January, 1901; *Report of the Industrial Commission on the Distribution of Farm Products*; and Mr. John F. Crowell in *Papers and Proceedings of the Fourteenth Annual Meeting of the American Economic Association*.

place for the yellow pine of the South, the white pine of Minnesota, Michigan and Wisconsin, and the spruce, fir and pine of Oregon and Washington.*

Where the farmer sells his produce, there he buys his supplies. The rival primary markets are at the same time rival jobbing and trading centres. To fall behind as a primary market means also to fall behind as a distributing centre; to gain as a distributing centre means also to gain as a primary market. Therefore it is necessary to divide among the rival railways and the rival markets not only the east-bound traffic in agricultural products, but also the west-bound traffic in merchandise and manufactures. This west-bound traffic may originate anywhere between Montreal in the North and Galveston in the South, and anywhere between the Atlantic seaboard in the East and the Missouri River in the West; and it may be sent to its final destination by way of any of the trading centres between Chicago and Duluth in the North and Galveston and New Orleans in the South. A change in the rates from the North Atlantic seaboard to Galveston, for example, would disturb the established course of trade with the entire area bounded on the east by a line running along the Mississippi River from New Orleans to Jefferson, Mo., and thence to Omaha, Sioux City, Deadwood and Cheyenne, and bounded on the west by the Sierras.

* *The Summary of Commerce and Finance*, November, 1900, and January, 1901.

For the purpose of regulating the east-bound traffic in agricultural products and the west-bound traffic in merchandise and manufactures, the territory of the United States has been divided into four parts, and the railways of each of those parts have been brought together in traffic associations. The latter apportion the competitive traffic among the several competing railways and trading centres. In order to effect that apportionment, it often becomes necessary to organize subsidiary traffic associations, which take charge of the railways of specific minor areas or of specific kinds of traffic. Again, the railways of the several parts of the United States often negotiate with each other for the purpose of agreeing upon the division of long-distance traffic carried over several of the main territorial divisions. The best-known example of such negotiation is the Transcontinental Traffic Association, which determines the distribution of the traffic between the Pacific coast and the territory lying between the Mississippi River and the Atlantic seaboard.

The first of the four divisions into which the United States has been divided comprises the territory east of the Mississippi River and north of the Ohio and Potomac rivers. The second comprises the territory east of the Mississippi and south of the Ohio and Potomac. The third division lies between the Mississippi River and the Rocky Mountains. The fourth comprises the Pacific coast region.

In the territory east of the Mississippi River and north of the Ohio and Potomac rivers, the east and west bound rates are adjusted in the first instance on the basis of relative distances, the distance between New York and Chicago being taken as the basis of comparison. Thus, the rates to and from St. Louis are 114 per cent of the Chicago rates, and those to and from Cincinnati are 87 per cent. To this general rule there are, however, many exceptions, which represent now a compromise between rival railways or rival distributing centres, now a compromise between the railways and the waterways. Baltimore and Philadelphia, as has already been stated, are allowed differentials on east-bound as well as west-bound traffic. Again, roundabout or circuitous lines, as well as lines whose equipment is not of the highest standard, are allowed differentials. These differentials vary from 5 cents per 100 pounds on first-class traffic and 1 cent on sixth-class traffic in the case of the New York, Lake Erie and Western, the Lehigh Valley, the West Shore and the Delaware, Lackawanna and Western railroads, to 10 cents and 3 cents respectively on the Chesapeake and Ohio, and 15 cents and 4 cents respectively on the Central Vermont Railroad. These differentials, like all the other departures from rates based on relative distances, are the result of compromises effected after years of contest, and they represent the condition upon which is maintained the state of armed peace

which is the characteristic feature of the railway situation in all parts of the United States.

The adjustment of rates in the territory south of the Ohio and the Potomac rivers and east of the Mississippi River is effected by the Southern Classification Committee, acting with the Southeastern and Mississippi Valley Association, the Southeastern Freight Association and the Associated Railways of the Virginias and the Carolinas. In this territory the competition between the railways, between the railways and the coast vessels and between the railways and the river steamers is such that the average receipts per ton per mile on the freight traffic are as low relatively as they are anywhere in the United States, and lower relatively than they are in most parts of the country. At the same time, the volume of traffic is comparatively slight and has to be handled under comparatively costly conditions, the average train-load as well as the average length of haul being comparatively small. These various factors have made the earning power of railway property in the territory south of the Ohio and Potomac comparatively slight, and thus they have prevented the railways from lowering the rates on local traffic to a closer approach to the level of the rates on through—that is, competitive—traffic as rapidly as the railways north of the Ohio and the Potomac have lowered their local rates. The comparatively small earning power of the railways of

*The Basing-point
System at the
South*

the South has also made the latter adhere more tenaciously to the so-called "basing-point" system, because of the economy in the conducting of transportation to be obtained from the use of this system.*

The railways of the South, like those of the rest of the United States, began with a system of something like equal mileage rates. But the necessity of meeting water competition at certain points and the competition between the railways themselves at other points soon led to wide departures from the scheme of equal mileage rates. So-called competitive rates were made to so-called competitive points, or basing points; and the rates to non-competitive local points were found by adding to the through rate to the nearest competitive point the local rate from that competitive point. For example, the rate to a local point 100 miles north of Atlanta, Ga., consists of the through rate from New York to Atlanta, plus the local rate from Atlanta back to the local point. The local point is nearer New York than is Atlanta, but the rate to it is higher than the rate to Atlanta. In other words, the rate on the longer haul is lower than the rate over the shorter haul.

This practice of making competitive rates to competitive points, or basing points, had two important effects: it decentralized trade, and it enabled the

* Upon the subject of the earning power of railway property in different parts of the United States, compare H. C. Adams, in *American Statistical Association Publications*, No. 3, 1892-93.

railways to effect great economies in conducting transportation.

Under a system of tapering rates, the sum of the through rate from New York to Atlanta, plus the local rate from Atlanta to some local point 100 miles to the north and nearer to New York, will exceed the through rate to that local point from New York. Similarly, the sum of the through rate from New York to Atlanta, plus the local rate thence to some point 100 miles farther south, will exceed the through rate to the point in question from New York. Under such a system of charges it would be impossible for wholesale merchants to establish themselves in Atlanta, for the purpose of selling to local points to the north and south in competition with New York merchants. But as soon as Atlanta is made a competitive point, or basing point, the Atlanta wholesale merchant is put on a footing of equality with the New York wholesale merchant in the territory to the north and south of Atlanta. In other words, the basing-point system decentralizes trade. It is commonly said that the basing-point system concentrates trade, in that it concentrates in Atlanta trade that would, under a different scheme of rates, go to the present local points. This view overlooks the fact that the trade thus concentrated in Atlanta is taken from New York, and not from the so-called local points. In the absence of the basing-point system, all points in the South would be local points, with local trade only.

The belief that the basing-point system concentrates trade is based on the erroneous assumption that, in the absence of that system, all points, or at least very many points, would be distributing points.

In the Australian colonies, the railways, which are owned and operated by the several States, have refused to introduce the basing-point system, with the result that there are, generally speaking, no interior distributing trade centres and that all trade is concentrated in the seaboard cities, such as Melbourne, Sydney and Adelaide. As the railways have been pushed inland, the enterprising merchants of the local towns have sold out and moved to the seaboard, for the purpose of availing themselves of the advantage accruing to the seaboard merchants from the absence of the basing-point system. For example, when the railways of Victoria ended at Ballarat, that city had an extensive jobbing trade to points in the interior reached by wagon road. But when the railways were pushed on to those points, the trade in question went to Melbourne. Under the tapering system the sum of the through rate from Melbourne to Ballarat and the local rate from Ballarat to some interior point exceeded the through rate from Melbourne to the interior point in question. The enterprising among the merchants of Ballarat moved to Melbourne and became, to use their own phrase, "metropolitan merchants." This concentrating effect of

the absence of basing points is freely admitted in the Australian colonies; and in some of the important debates upon railway rates, held in recent years in the Parliament of New South Wales, many prominent Sydney merchants and manufacturers admitted that the absence of basing points concentrated trade in Sydney. They added that they personally had no complaint to make, for the system of tapering railway rates had transformed them (the merchants) from country storekeepers into metropolitan merchants. But the greatest statesman in Australia, Mr. G. H. Reid, has repeatedly called the resulting concentration of the population in the seaboard cities "the curse of Australia." In 1901 there were living in Sydney 36 per cent of the people of New South Wales; in Melbourne, 41 per cent of the people of Victoria; and in Adelaide, 45 per cent of the population of South Australia.

There is, however, no need of going so far from home as Australia for the purpose of finding support for the contention that the basing-point system decentralizes trade. It is notorious that, so far as the construction put upon the so-called long and short haul clause of the Act to Regulate Commerce by the Interstate Commerce Commission has been observed by the railways, it has worked against the interior distributing centres, in favor of Chicago and the Atlantic seaboard

*The Interstate
Commerce Com-
mission versus
the Interior Job-
bing Points*

cities.* In fact, the most effective reduction in railway rates made by any State legislature down to 1888 was prompted largely by the desire to protect the jobbing centres of a certain Middle Western State against the loss of trade to Chicago resulting from the partial enforcement of the long and short haul clause of the Act to Regulate Commerce. It was largely for the purpose of protecting the jobbing interests of Dubuque, Davenport and other Iowa towns that the Iowa legislature in 1888 enacted a law under which the State Railroad Commissioners in effect reduced by from 20 to 30 per cent the rates on traffic originating in Iowa and destined to points within the State.† It is well known, also, that the merchants of New York and Chicago would like to see the Interstate Commerce Commission of the United States succeed in its efforts to overthrow the basing-point system of the South, for they believe that the present wholesale trade of Atlanta and the other southern basing points would then go in large part to New York and Chicago.

* Compare: *Reports and Decisions of the Interstate Commerce Commission of the United States*, Vol. I, p. 629; *The La Crosse Manufacturers' and Jobbers' Union v. The Chicago, Milwaukee and St. Paul Railway Co., et al.*, Vol. II, p. 289; *N. W. Howell, etc., v. The New York, Lake Erie and Western R. R. Co., et al.*, Vol. II, 315; *The Detroit Board of Trade, etc., v. The Grand Trunk Railway of Canada*, Vol. II, p. 25; *E. Martin, et al., v. The Chicago, Burlington and Quincy Railroad Co., et al.*; and *The Railroad Gazette*, April 22, 1887, August 17, 1888, and May 2, 1890.

† Mr. E. P. Ripley, Third Vice-President of the Chicago, Milwaukee and St. Paul, at a hearing of the Iowa State Railroad Commission, August 21, 1894; quoted in F. H. Dixon's *State Railroad Control*. Compare also: *The Evening Post* (New York), October 23, 1897, and *The Railroad Gazette*, February 15, 1889.

Finally, the Interstate Commerce Commission itself has been obliged to admit that the basing-point system decentralizes trade and industry, though it has not permitted that admission to modify its policy of hostility to that method of rate-making. In *Holdzkom v. Michigan Central Railroad Co., et al.* (I. C. R. 9), the Commission found that the making of Los Angeles into a basing point had transferred to that city a part of the wholesale trade of San Francisco, and that it had not made Los Angeles grow at the expense of San Bernardino, a local point. It added: "In many instances San Francisco houses have established branches at Los Angeles. It is probable that this arrangement results in somewhat cheaper prices for southern California than would be secured by a distribution from San Francisco, since the cost (to the consumer) at the two centres of distribution is now the same, while the expense of distributing from Los Angeles is somewhat less. While, therefore, Los Angeles has been benefited, it would appear that this whole section shares to an extent in such benefit; nor is it easy to perceive how San Bernardino has been materially injured, since that city could not become a jobbing centre as against San Francisco under original conditions" — that is, under the conditions that had obtained before Los Angeles had been made a basing point.

The second noteworthy effect of the practice of making low through rates to competitive points

was a great economy in the cost of conducting transportation. Freight that moves in a large and regularly flowing stream is handled much more cheaply than freight which flows in small and intermittent quantities. In the absence of basing points, freight has to be carried over long distances from the sources of supply in comparatively small and irregularly flowing quantities. The establishment of basing points makes possible a preliminary concentration of these small and irregular rills of traffic into a comparatively large and regularly flowing stream, which can be handled at comparatively low cost. It limits the comparatively costly traffic of small volume and intermittent flow to the relatively short-distance hauls from the basing points to the point of consumption. Even in the absence of water competition and railway competition, it would therefore be to the interest of the railways to establish throughout the land such points for the preliminary concentration of the traffic which comes from distant sources of supply and is ultimately to be distributed among a scattered population. That concentration also serves the interest of the public at large, for it increases the margin of profit of the railways and thus encourages railroad building. Had the railways of the United States not been able to avail themselves of the savings to be attained by distributing freight to the country consumer through the agency of basing-points, or

competitive points, railway building would have progressed more slowly, and the country population would have had fewer and poorer facilities for marketing its produce.

Here again a glance at Australia will help us. The absence of interior jobbing centres in that country is responsible in part for the ridiculously low average of the train-load, which was, in 1902, in New South Wales 66 tons and in South Australia 69 tons. Such small train-loads mean high operating expenses, high freight rates, big deficits in the State railways and a slow extension of the railway net.

It is the economy of the basing-point system, in conjunction with the unusually narrow margin of profit upon which the railways south of the Ohio and Potomac rivers are operated, that has led those railways to offer such stubborn resistance to the efforts of the Interstate Commerce Commission to break down the basing-point system.

In the South, as elsewhere in the United States, the basing points owe their existence to water competition, to railway competition or to the fact that they are the centres of regions whose trade is deemed sufficient to call for basing points. But this does not mean that every point with water competition or railway competition will become a basing point, nor does it mean that all basing points enjoy equal advantages. For example, Birmingham and Atlanta are on a footing of equality as regards rates from the

Atlantic seaboard; but as regards rates from the Central West, Birmingham has had, since 1886, the advantage over Atlanta. From the Central West the rates were the same to the two cities in question until the Kansas City, Memphis and Birmingham Road was built in 1886. That road insisted on lowering the rate to Birmingham to the level of the rate to Chattanooga. As it did not reach Atlanta, it left the Atlanta rate undisturbed. The Louisville and Nashville and the other roads reaching both Birmingham and Atlanta tried to maintain the old rate to Birmingham, but finally they had to yield to the Kansas City, Memphis and Birmingham. The late Judge Cooley was called in as arbitrator, and the differential which he awarded to Birmingham on traffic from the West has been maintained to the present day. Again, while the rates from the West to Norfolk are the same as the rates from the West to Baltimore, the rates from the West to Charleston are double the Norfolk rate. It so happens that it would be impossible to lower the Charleston rate to the Norfolk level without having public opinion force corresponding reductions to Augusta, Macon, Atlanta and other points. The railways hold that their revenues could not bear the last-mentioned reductions, and hence the rates to Charleston are kept high.

Still again, for some years past the Mobile and Ohio Railroad has insisted upon giving Mobile the same low rates that other railroads have to give New Or-

leans because of the competition from the coast steamers and the Mississippi River steamers. In consequence of this action of the Mobile and Ohio Railroad, it is cheaper to ship goods from the North to Mobile and then back to Montgomery — a distance of 175 miles — than it is to ship from the North directly to Montgomery. If the railways should lower the direct rate to Montgomery, competition and public opinion would force them to make corresponding reductions to Columbia, Eufaula, Atlanta, Columbus and other points. Therefore the railroads continue the adjustment of rates under which goods are actually shipped to Mobile and then back to Montgomery. Finally, there are some basing points, such as Cordele, which are basing points for no other or better reason than that some railroad insisted on making them basing points and was strong enough to overrule the opposition of the other roads. To sum up, there are many rates in the territory south of the Ohio and Potomac, as everywhere else in the United States, that seem at first sight to have been made haphazard and as a matter of caprice. But upon examination they turn out to be the result of compromise effected after years of experimenting — compromise between rival railways, between rival trade centres and between the claims of the public as shippers and the claims of the railways as revenue-earning properties. To use the words of Mr. M'Govern, Chairman of the Southern

Classification Committee, the existing rates have been made as a matter of judgment and arbitration, controversy and war. They have been heated and forged and moulded and pounded and hammered into their present shape.*

The importance of this matter justifies the reproduction of the description of the adjustment of rates made before the Industrial Commission by Mr. M. C. Markham, Assistant Traffic Manager of the Illinois Central Railroad.† Mr. Markham began by stating that the Mississippi River fixed the rates between New Orleans and St. Louis. He then added that, while Mobile, situated 140 miles east of the Mississippi River, had not the competition of a river to force down railway rates, it had railways which were interested in enabling Mobile merchants and manufacturers to compete in common markets with New Orleans merchants and manufacturers. Going 180 miles farther to the northeast, one came to Montgomery and Selma, trade centres on the Alabama River. The railroads reaching Montgomery and Selma had no interest in New Orleans or Mobile, and tried to get all the traffic they could to and from Montgomery and Selma, by putting those towns on a fair plane respecting rates with Mobile and New Orleans.

* *Report of the Industrial Commission on Transportation* (second volume): testimony of Mr. F. J. M'Govern.

† *Ibid.*: testimony of Mr. M. C. Markham.

Going still farther inland, one came to Meridian and Jackson, Miss., Birmingham, Talladega and Gadsden, Ala., and Chattanooga, Tenn., on the one side, and Columbus, Rome, Atlanta, Athens, Macon and Augusta, Ga., and other towns of importance, on the other side, all asking of the railroads which served them such rates as would enable them to do business in common territory in competition with New Orleans, Mobile, Montgomery and Selma, as well as in competition with one another.

In the same way, Galveston, 360 miles west of New Orleans, had no river advantages, but the railroads serving it enabled its merchants and manufacturers to compete in northern common markets with the merchants and manufacturers of New Orleans. The adjustment of rates which the Galveston roads had to make for that purpose ultimately was extended to the outlying and intermediate towns between Galveston and the Missouri River, and between Galveston and the Mississippi River north of Vicksburg, all of which had to have the concessions which the forces of trade warranted.

Finally, the low rates made by the railways from St. Louis to Memphis and New Orleans, on account of the Mississippi River, had to be met by the railways from Chicago, Cincinnati and many other points, in order to enable the industries of the last-named cities to hold their own with the industries of St. Louis. In this way, said Mr. Markham, the low

rates which were made in the first instance to meet the competition of the Mississippi River, ultimately were extended, wholly or in part, to the entire northern, southern and southwestern portions of the United States.

When the South began to develop manufacturing industries, the railways of the South encouraged the industries in question by making especially low rates on their products. For example, the rates on the manufactures of cotton frequently have been lower than the rates on the raw material. The rates on certain manufactures of iron frequently are as low as the rates on pig iron. Again, on many kinds of manufactures the rates within the territory south of the Ohio and Potomac are lower than are the rates on similar manufactures when shipped into the South from the North and the Central West.

The railways of the South have not confined themselves to efforts to enable southern industries to meet the competition of northern and western industries in the South; they have also enabled the products of southern industries to invade the markets of the northern and western industries. For that purpose they have made so-called commodity rates, or rates applicable to specific articles between specific points. Those rates are made as low as the competition for the market demands. For example, the railways recently made a commodity rate on overalls and simi-

*Charging what
the Traffic will
bear*

lar cotton manufactures from Atlanta to St. Louis, for the purpose of enabling the Atlanta manufacturer of overalls to invade a market that had thus far been held by the manufacturers of Baltimore and other cities.

Commodity rates from specific points in the South to specific points in the North and the West are numerous, and they are increasing with the increase in the number of articles manufactured in the South. The southern manufacturing industries in iron, cotton, furniture, bags, paper boxes and so forth have been built up very largely by means of commodity rates. Indeed, the industries throughout the United States have been aided enormously by means of commodity rates, which have established for many articles an almost unrestricted trade over the whole United States. For example, from such widely separated points as Grand Rapids in Michigan, Rochester in New York, Harrisburg in Pennsylvania, and Atlanta in Georgia commodity rates on furniture and other manufactures of wood are made to all of the principal markets in the United States.*

The practice of making commodity rates adds greatly to the complexity of the rate situation. It makes one set of rates on Southern manufactures destined for a southern market, and another set of

* *Report of the Industrial Commission on Transportation*: testimony of Mr. G. R. Blanchard, late Commissioner of the former Joint Traffic Association; and testimony of Mr. P. J. McGovern, Chairman of the Southern Classification Committee.

rates for southern manufactures destined for a market in the North or in the West. The former set of rates is made with a view to enabling southern manufactures to meet in the South the competition of northern and western manufactures; the latter set of rates is made to enable the southern manufactures to invade the northern and western markets. In each case a compromise has to be effected between the rival claims of the competing railways and industries of the South, the North and the West. It is one of the main functions of traffic associations to effect that compromise.

One of the most striking regulations of the course of trade effected by traffic associations is the partition of the trade of the region south of the Ohio and the Potomac between the commercial centres of the Atlantic seaboard and those of the Central West.* In the seventies, when this partition was effected, the South imported its merchandise and its manufactures mainly from the Atlantic seaboard territory, while it imported its food-stuffs, "in the solid and liquid forms of corn, bacon, flour and whiskey," from the Central West, which at that time was still largely a farming region. There was then, as there is now,

* *Decisions of the Interstate Commerce Commission of the United States, Vol. VI, Freight Bureau of the Cincinnati Chamber of Commerce v. The Cincinnati, New Orleans and Texas Pacific Railway Co., et al.*

the keenest competition between the railways from the Atlantic seaboard to the South and the coast vessels, as well as intense rivalry between the railways leading into the South from the Atlantic seaboard and those running from Chicago, St. Louis, Cincinnati and other points of the Middle West. When competition was especially keen, manufactures and merchandise from New York went by rail, or lake and rail, to Chicago, or by rail to St. Louis and thence by rail into the South. Conversely, the agricultural products of the Middle West would go by rail, or by lake and rail, to the Atlantic seaboard and thence by coast vessel to the South. Under those arrangements, rates were frequently badly demoralized in the territory north of the Ohio and Potomac, and the railways of the South were continually drawn into the disputes among their northern connections. For the purpose, therefore, of regulating the competition between the railways of the Atlantic seaboard territory and the railways of the Central West, it was agreed, among the railways of the South, the Central West and the Atlantic seaboard, that the trade with the South in food-stuffs should be awarded to the Middle West and its railways, while the trade in merchandise and manufacture should be awarded to the Atlantic seaboard territory and its railways. Roundabout shipments of merchandise and manufactures from the Atlantic seaboard by way of Chicago and St. Louis were to be stopped by a prohibitory

rate when the articles in question were shipped from Chicago and St. Louis. On the other hand, shipments of agricultural products by way of the eastern seaboard were to be prevented by prohibitory rates from the seaboard. In other words, an additional charge of at least 10 cents per 100 pounds was imposed on "western" goods when carried by "eastern" lines, as well as on "eastern" goods when carried by "western" lines. This arrangement, with modifications, has been maintained to the present day.*

Since the foregoing adjustment of rates was effected in 1878, the Central West has developed extensive industries, especially the manufacture of furniture, wagons, carriages, stoves, agricultural implements, shoes, clothing and saddlery. As early as 1890, all the manufactures in question were sold as far east as Rochester and Albany, N.Y.; as far west as the Pacific coast; and to a greater or less extent over the South, from Texas and Arkansas to the Virginias. At the time just mentioned, the merchants and manufacturers of the Central West met with strong competition from the Atlantic seaboard merchants and manufacturers in the sale of goods in Alabama, East Tennessee, Florida, Georgia, the

* *Report of the Industrial Commission on Transportation* (second volume): testimony of Mr. W. L. Guillauden, President of the Old Dominion Steamship Company: "It is fully twenty years since there has been any general movement of grain and other agricultural products from the West to the South by way of New York. There is some traffic from the West by way of Baltimore and Philadelphia for points south of Cape Hatteras, but the great volume of western freight goes into the South directly by way of the Ohio and Mississippi River towns."

Carolinas and the Virginias. They were not driven out of this territory altogether by the competition from the East; but their business and the profit on it were not, as a rule, so great as in the other markets. In some instances they were required by their customers to "equalize rates" — that is, to refund any excess of the freight rates on their goods over the rates on goods of the same kind shipped from the eastern seaboard territory.*

The railways of the Central West from time to time have asked for a general readjustment of the rates from the East and the West, alleging that the shifting of the centre of population to the Southwest and the development of manufacturing in the territory west of the Alleghany Mountains has made necessary a readjustment of rates, in the interest of the Central West. Thus far the eastern railways have been able to prevent any general readjustment, but they have been obliged from time to time to concede readjustments of rates on specific articles which were coming to be manufactured extensively in the Central West. Under those readjustments the Central West is constantly increasing its trade in manufactures with the South.† These rearrangements are compromises;

* *Freight Bureau v. Cincinnati, New Orleans and Texas Pacific Railway Co., et al.*

† Compare *Report of the Industrial Commission on Transportation* (second volume): testimony of Mr. E. P. Wilson, Secretary of various Ohio commercial organizations; of Mr. M. C. Markham, Assistant Traffic Manager Illinois Central Railroad; and of Mr. W. L. Guillauden, President Old Dominion Steamship Company.

and, like all compromises, they are not wholly satisfactory to any interest and are very unsatisfactory to some interests. But when they are contrasted with the deadlocks occurring constantly in Europe under the public regulation of railway rates, — either through the assumption of public ownership or through the public supervision of the rates made by corporations, — they are eminently satisfactory. The compromises in question are a striking illustration of the fact that in the United States railway rates are made by the forces of trade and commerce; that they are a result, rather than a cause; and that they register the resultant of the many and diverse forces which produce the rise and fall of industries.

The story of the distribution over the West of the merchandise and manufactures of the East affords fur-

The West illustrates the Complexity of the Problem further illustrations of the extraordinary complexity of the problem of railway rates. The first railways into the West were built from Chicago and St.

Louis, and so the problem originally was to distribute between Chicago and St. Louis the trade with the West. But as railways were built into the West from Minneapolis, St. Paul and Duluth in the North, and from New Orleans and Galveston in the South, — as well as from numerous intermediate points, — the problem became more and more complex and difficult.

As early as 1876 the railways leading into the West from Chicago and St. Louis agreed that the St. Louis

railways should have certain differentials on all competitive west-bound traffic which passed between Chicago, Hannibal or St. Louis, on the one hand, and St. Joe, Atchison, Leavenworth or Kansas City, on the other hand, to, through or beyond any of these points. These differentials neutralized, on freight passing into the West by way of the cities just mentioned, the fact that the freight charge from eastern points to St. Louis is 114 per cent of the charge to Chicago; and they have been maintained to the present day. The arrangement applied to competitive freight only; it did not apply to lumber, for example, because Chicago had the monopoly of the lumber trade, and the St. Louis railways knew it was useless to dispute that monopoly. This fact shows once more how American railway rates adapt themselves to the forces of trade, instead of seeking to make the forces of trade adapt themselves to theories of railway rates.

Shortly after the St. Louis differentials had been established, a railroad was built from Toledo, Ohio, to the Missouri River by way of Hannibal, Mo. Hannibal thus became the Missouri River terminal of a rail and water route from the seaboard, and was enabled to force St. Louis and Chicago to concede to it 10 per cent of the traffic to and from the West. The remainder of the traffic St. Louis and Chicago divided between themselves, share and share alike.

When, in the later nineties, the Kansas City, Pittsburg and Gulf Railroad had been completed between

Galveston and Kansas City, this road asked the roads to the north of Kansas City to coöperate with it, by allowing it to make rates which would secure to it a share in the traffic between the eastern seaboard and Kansas City, Omaha, Denver, Cheyenne and Deadwood. The roads leading into the West from Kansas City, Chicago and St. Louis protested, on the ground that the combined water and rail route from the East by way of Galveston was too roundabout and too long to come within the limits of legitimate competition.* Thereupon the Kansas City, Pittsburg and Gulf cut its rates to less than 9 mills per ton-mile on first-class traffic and to less than 3.8 mills on sixth-class traffic. In the fiscal year 1897-98, the road in question received for carrying freight on an average 5.7 mills per ton-mile, as against 10.1 mills received by the other railways in the territory served by the Kansas City, Pittsburg and Gulf Railroad. The railroad was bankrupted, but it established its claim to a share in the traffic between the seaboard and the territory between the

* *The Railroad Gazette*, October 20, 1899.

	ALL RAIL	RAIL AND WATER
Distance from New York to	Miles	Miles
Kansas City	1318	3136
Omaha	1403	3330
Denver	1941	3775
Cheyenne	1919	3846
Deadwood	2034	3964

Mississippi River and the Sierra Mountains. And the people living in the last-mentioned territory henceforth will enjoy the benefit of the competition between the roads leading directly to the Atlantic seaboard and the roads leading to the Gulf ports. From eastern cities lying as far inland as Buffalo freight is sent to the Atlantic seaboard, thence to Galveston and thence to points on the Missouri River and west of the Missouri River, in competition with the direct all-rail routes by way of Chicago, St. Louis and Kansas City.

Contrast the elasticity of America with the cast-iron rigidity of Germany, where the fixing of railway rates by public authority has destroyed Bremen's import trade in petroleum; has prevented Bremen from building up an export business in sugar, the greatest single article of export from Germany; and has necessitated the duplication of the railway running from Stettin to Berlin, by means of a canal that shall carry 650-ton vessels. Contrast the situation in the United States with the situation in Australia, where the making of railway rates by public authority has concentrated in three seaboard cities the trade that, under the making of railway rates by the railways themselves, would have been distributed among half-a-dozen seaboard cities and numerous interior jobbing centres.

Further light upon the nature of the conflict between rival distributing centres is to be obtained from a study of the trade between the Pacific coast region

and the territory between the Atlantic seaboard and the Missouri River.* The transcontinental lines have to make commodity rates on some 1500 articles of traffic between the Atlantic and the Pacific seaboard, in order to meet the competition of sailing vessels and steamers around Cape Horn, and the competition of the combined land and water route by way of the Isthmus of Panama.† These commodity rates have in course of time come to be extended to the whole territory between the Missouri River and the Atlantic coast—in other words, they have become postage-stamp rates. These rates have a double justification. In the first place, the effect of the water competition around Cape Horn extends into the interior of the United States, as far west as the Missouri River. Freight originating

* *Report of the Industrial Commission on Transportation* (second volume): testimony of Mr. J. C. Stubbs, third Vice-President of the Southern Pacific Company, and Mr. W. R. Wheeler, representing Pacific Coast Jobbers' Association.

† *The Foreign Commerce and Navigation of the United States, 1901.*

VALUE OF THE MERCHANDISE SHIPPED BETWEEN NEW YORK AND SAN FRANCISCO VIA THE ISTHMUS OF PANAMA

	NEW YORK TO SAN FRANCISCO	SAN FRANCISCO TO NEW YORK
1890	\$ 2,090,000	\$ 969,000
1895	3,389,000	1,971,000
1900	5,052,000	1,766,000

The list of articles extends from pig iron to confectionery and pianofortes.

anywhere on or east of the Missouri River can go to the Pacific coast by going directly westward, or by going eastward to the sea and thence by water. In the second place, the railways which extend westward from Pittsburg, Chicago, St. Louis, St. Paul, Omaha and similar points find it to their interest to develop the industries of their respective territories, by making the same low rate to the Pacific coast that the seaboard roads make. They are not willing that the Atlantic seaboard shall have a monopoly of the trade with the Pacific coast.

This arrangement of rates—which to the unsophisticated person would seem to be ideal, in that it puts every one between the Atlantic coast and the Missouri River on a footing of equality in the competition for the Pacific coast trade—is not satisfactory to the Atlantic seaboard or to the Central West or to the Pacific coast. The Atlantic seaboard protests against the extension of the low rates to the people of Chicago and St. Louis. It contends that the ocean is a “natural” means of transportation, and that location upon its shores entitles one to a “natural advantage” over him who is served only by a railway, an “unnatural” and “artificial” agency of transportation. The people of Chicago, on the other hand, contend that Chicago should have a lower rate than New York because it is nearer to the Pacific coast by rail. St. Louis extends this reasoning and

demands a rate lower than the Chicago rate. The jobbers of the Pacific coast, on the other hand, contend that neither Chicago nor St. Louis should be allowed to share in the jobbing trade of the Pacific coast, which by "natural right," they say, belongs to the Pacific coast cities. Says the man whom the Pacific Coast Jobbers' and Manufacturers' Association recently put forward for appointment to the Interstate Commerce Commission of the United States : "The people who pioneered San Francisco did not go there because of the beauty of its location or because the climate was particularly attractive. They went because of its commercial possibilities. They recognized it as the *entrepôt* to the Pacific coast, and the wisdom of their action has been demonstrated. That was when goods moved by sea entirely. San Francisco became the gateway to the entire Pacific coast. Goods were distributed up the rivers or redistributed from San Francisco up the coast and down the coast and back into the interior by team, and finally local railways were built, which in turn became distributive agents, and in the course of time the transcontinental railway was built." The representative of the Pacific Coast Jobbers' Association next tells us that the waterway between San Francisco and New York is "God's highway"; whose highways the transcontinental lines are he leaves us to infer from his vigorous disapproval of the Chicago roads' practice of "arbitrarily bestow-

ing" upon the Chicago jobber and manufacturer the power "to reach out into the other fellow's territory on the Pacific coast."

The same conflict of interests that exists between the cities of the Central West and the cities of the Pacific coast is to be found between the southern and the northern transcontinental lines. The Atchison, Topeka and Santa Fé and the Southern Pacific railroads are ready to grant the request of the San Francisco jobber that the difference between the rate on car-load lots and the rate on less than car-load shipments be made large enough to afford the San Francisco jobber a certain degree of protection against the competition from the jobber of the Central West. The roads in question lead to San Francisco, whose jobbers are sufficiently powerful to guarantee the San Francisco railways a due share in the transcontinental traffic. The Northern Pacific and the Great Northern, on the other hand, end on the Puget Sound, whose cities are not yet very large, and are therefore not in a position to guarantee the northern railways the traffic which San Francisco guarantees the southern ones. The Northern Pacific and the Great Northern, therefore, are inclined to yield to the demand of St. Louis and Chicago for comparatively small differences between the rates on car-load shipments and less than car-load shipments. In the long run the Northern Pacific and the Great Northern are more interested in the Puget Sound cities than in

St. Louis and Chicago; but the immediate needs of their treasuries will not allow them to pursue an extreme policy of protection to the Puget Sound cities. To build up a jobbing trade on the Puget Sound requires time; and in the interval the northern transcontinental lines find it worth while to cultivate the good-will of the jobbers at St. Louis and Chicago. And that shows once more the part played by expediency and compromise in the adjustment of railway rates.

CHAPTER V

THE DECISIONS OF THE INTERSTATE COMMERCE COMMISSION

Export and Import Rates

SINCE early in the seventies, the railways of the United States have made materially lower rates to the Atlantic seaboard on grain, flour, bacon, pork, beef, lard, canned goods, oil-cake, tobacco and cotton, when destined for export, than when destined for domestic consumption. On February 10, 1888, for example, the rates on bacon, pork, lard, beef and canned goods were 33 cents per 100 pounds, if these articles were intended for domestic consumption, and 17.375 cents if they were intended for export. On flour the two sets of rates were, respectively, 27.5 cents and 14.625 cents. Each of the railways engaged in carrying our agricultural products to the seaboard, moreover, has agents stationed at the seaboard and at the great inland market centres, whose business it is to keep informed of the daily and hourly changes in the prices of agricultural staples in the European markets, and to adjust the export railway rates to fluctuations in those prices. This practice of dis-

crimination between grain for export and grain for domestic consumption has been of the greatest value to the American farmer, in that it has promoted the steady flow to Europe of our agricultural products, and has thus prevented such undue accumulations in this country as would have seriously depressed the price in the world's market at Liverpool. It has also facilitated a general reduction in the transportation charges on grain for export, and thus has tended to sustain the farm price of agricultural products here; for the difference in price between wheat on the American farm and wheat at Liverpool averages something like the transportation charges from the farm to Liverpool. It has been in the past, and still remains, out of the question for our railways to lower their rates on agricultural products destined for domestic consumption to the level of the rates on such products destined for export. The revenues of the railways could not bear the loss. The alternative to the existing discrimination between rates for export and rates for domestic consumption would be, not lower rates for domestic consumption, but higher rates for export, with consequent lowering of the price of wheat on the American farm.

But while the discrimination under discussion re-
New York City dounds to the advantage of the Ameri-
versus the West- can farmer, it tends at the same time
ern Farmer to eliminate from the export busi-
ness the middleman at the Atlantic ports. The

owner of a grain elevator at New York City cannot compete with the western owner of a grain elevator, if he has to pay the domestic rate on grain shipped to New York, to be held there for subsequent sale either in the domestic market or abroad, while his western competitor can obtain the export rate on grain sent on through bills of lading directly from the West to Liverpool. It is apparent that the Atlantic seaboard dealer must either withdraw from the export business, confining his attention to the domestic trade, or establish branches at western points. So far as he establishes western branches and ships from the West on through bills of lading, he ceases to use his Atlantic seaboard elevators for the storage of grain for export. That in turn not only impairs the value of his elevators, but also curtails the employment on the Atlantic seaboard of laborers, lawyers, bankers and others directly and indirectly dependent upon the business of storing grain in elevators. It is readily understood, accordingly, why in 1889 the New York Produce Exchange, alarmed at the decline in the use made of grain elevators in New York City, applied to the Interstate Commerce Commission for relief. The practice of discriminating between grain for export and grain for domestic consumption likewise promoted the export of grain by way of Baltimore and Philadelphia, instead of New York, by enabling the railroads leading to these cities to cut export rail rates for the purpose

of neutralizing in part their variable higher ocean rates. This was a further reason why the New York Produce Exchange appealed to the Interstate Commerce Commission for the abolition of discriminating rates in favor of export grain.

The Interstate Commerce Commission rejected the argument of the railways that the conditions under which grain for domestic use and grain for export were carried were essentially dissimilar, in that export grain had to meet in Liverpool the competition of grain from Argentina, Russia, the Danubian Principalities, India and Australia. It said that "considerations relating to competition in foreign markets or what are called the markets of the world, do not aid the interpretation of a domestic statute, nor so enlarge its application as to make it effective upon the ocean, and, by reflex influence, authorize different standards for internal rates." To justify a discrimination between rates on grain for domestic use and grain for export, the defendants must show that the conditions under which the two kinds of traffic were carried differed at New York, or between western points and New York; it would not avail them to show that the market conditions at Liverpool differed from the market conditions at the Atlantic seaboard. It therefore ordered "that the several defendants cease and desist from unjustly discriminating in their rates and charges for inland transportation, between traffic consigned on through bills to foreign ports

from interior points, and like traffic consigned to the seaboard."*

It is necessary to add that, in the delivery of the opinion and order, the Commission did two things that have been rather characteristic of it. It resorted to an appeal to popular prejudice that is unbecoming a court, though admirably adapted to the purposes of a stump speech; and it showed inability to understand the reasoning that explains how prices are fixed in the world markets. The Commission said that the discrimination complained of gave "foreign purchasers advantages over home dealers, and established prices in foreign markets for the entire products exported, and, to some extent, for the domestic sales as well." For the charge of preference to foreign purchasers over home dealers there was no justification. The practice complained of gave advantages to the persons who shipped on through bills from the interior, and the mere fact that among such persons were the agents of European importers of grain did not justify the charge of preferring foreign purchasers over home dealers. The further charge that the rates complained of "established prices in foreign markets for the entire products exported, and, to some extent, for the domestic sales as well," was an indorsement of the

* *Reports and Decisions of the Interstate Commerce Commission*, Vol. III, *The New York Produce Exchange v. The New York Central and Hudson River Railroad Co., et al.*

unsound argument with which the New York Produce Exchange supported its complaint. That organization said, "The theory that the inland export rate ought to be more flexible than the inland tariff rate, in order to place our surplus crops abroad, is all a misconception.

"Our exportable surplus of wheat, for example, is about 100,000,000 bushels. Of this quantity Great Britain absorbs about four-fifths, or 80,000,000. That the market value of the exportable surplus product of any country fixes the value of the whole crop, is a well-known and established fact. Prices would advance in England if our surplus was withheld, or its exportation merely checked. The attempt of the railroad companies, therefore, to meet markets on Indian competition, etc., is a direct and positive injury to the producer; because thereby the surplus is hurried to market, and prices depressed, not only on the quantity thus prematurely marketed, but of the entire crop, far below the nominal or actual value, if the regular course of supply and demand is allowed to prevail. Therefore, instead of helping the farmer, they create a new and uncertain commercial factor, which, while it injures every producer, by artificially depressing prices, at the same time reduces the legitimate earnings of the railroad companies, *cui bono?*"

The Interstate Commerce Commission, in indorsing this reasoning, put itself on a level intellectually with the Russian bureaucrats who, not many years ago,

rejected the farmers' request that railway rates be lowered to such a point as to permit the raising of more wheat for export on the lands in the distant interior of Russia. The reply came that the flooding of the Liverpool market with Russian wheat would depress the price of the grain in Liverpool and in Russia, would redound to the benefit of the foreigner and would mean the waste of the Russian nation's labor and resources of soil.

Immediately after the Interstate Commerce Commission had delivered the opinion in which it condemned the rates complained of by the New York Produce Exchange, the Chambers of Commerce of Minneapolis and Indianapolis, with various associations of western millers and farmers, protested that the farmer at the West was raising wheat in order to make a living, not for the purpose of maintaining the grain elevator and commission business at New York City. The western people saw clearly that the enforcement of the order of the Interstate Commerce Commission would mean lower prices for western produce.* A serious conflict of sectional interests

* *The Railroad Gazette*, July 6 and August 10, 1888; April 12, 1889; and July 26, 1889.

Compare also: *Report of the Industrial Commission on Transportation*, Vol. IV, p. 234, testimony of Mr. S. R. Callaway, President New York Central and Hudson River Railroad Co.: "Yes, we have agents; export agents in Chicago, and export agents in New York, and they get the prices of these commodities in Liverpool every day, and they get the ocean freight. The whole thing has to be done as one; you must land that stuff in Liverpool. . . . We have a corn crop here of about

would thus have been precipitated, had not the order of the Commission been virtually set aside by the Supreme Court of the United States, through the effect of its decision in another matter presently to be described.

Supplementary to the practice of discrimination in favor of agricultural exports, a scheme of discrimination in favor of imports destined for the interior of the country had meanwhile grown up. As soon as the railways leading to Philadelphia, Baltimore and Montreal began to compete strongly for the business of exporting grain to Europe, they had to induce steamship companies in some special way to send steamers to Philadelphia, Baltimore and Montreal to load with grain. This had to be done because it was difficult to find cargoes for steamers on their way to the cities in question, which had little standing as importing places. The railways therefore authorized the steamship lines to take freight from Europe, shipped through to points in the interior of the United States by way of the cities above mentioned, at any rate that was to be obtained, they

The Commission versus Philadelphia, Baltimore and New Orleans

2,500,000,000 bushels a year. Now there is a very small portion of that consumed in the United States. What are you going to do with the surplus? How are you going to enable the farmer to sell it? The railroads come in and say: 'We will help you to do this; we will enable you to get this to Liverpool at a cheaper rate than we can take this stuff to New York City.' Now that is the general theory on which we do this business. Whether it is right or wrong I do not know. I think if we were to stop it there would be a howl from the West that we would not get over very soon."

themselves agreeing to carry the freight into the interior at a certain per cent of that total rate.* Thus in time it even came about that New York merchants occasionally found it advantageous to have their imports sent to Chicago, by way of one of the southern or northern ports, and thence back to New York. Again, Chicago importers, such as Field, Leiter and Co., were often enabled to sell goods in "New York territory." The situation no doubt annoyed the merchants of New York, by curtailing both at home and in the West the monopoly of trade which they had long enjoyed; it offended also the American manufacturer, for it neutralized in part the protective tariff. But to the American people as a whole the practice was of great benefit, for it promoted powerfully the development of Montreal, Boston, Philadelphia and Baltimore as ports of export and import.

Subsequently the practice of discriminating between imported goods sent from Europe on through bills of lading and imported goods reshipped at the seaboard or domestic goods for the interior manufactured on the seaboard was extended to all ports as far south as New Orleans and Galveston. This extension was due to the necessity of meeting water competition. The railways leading from New Orleans to St. Louis, Kansas City, Omaha and Denver had to meet the competition of the barge lines on the Mississippi River, if they wished to share in the car-

* *The Railroad Gazette*, November 14, 1879.

riage of commodities imported from Europe. The Southern Pacific Railway also had to cut rates on imports from Europe, if it wished to carry them overland from New Orleans, in competition with the ocean routes by way of Cape Horn and the Isthmus of Panama. The articles upon which the railways thus discriminated, according as they were shipped from the Atlantic seaboard or were brought as through freight from Europe, were tea, tin-plate, soda caustic, wines and liquors, groceries and certain articles of general merchandise. The transportation business in these commodities was not large, but it was steadily increasing and yielded a revenue which was a material aid to the railways.

In March, 1889, on the basis of the evidence in a case brought before it by seaboard commercial interests, the Interstate Commerce Commission issued an order providing, among other things, that "imported traffic transported to any place in the United States from a port of entry or place of reception, . . . is required to be taken on the inland tariff governing other freights"—that is, governing freights originating on the Atlantic seaboard. A few months afterward the New York Board of Trade and Transportation, the Commercial Exchange of Philadelphia and the San Francisco Chamber of Commerce filed a complaint against a large number of railways for violating the Commission's order.* The Commission

* *The New York Board of Trade and Transportation, et al., v. The Pennsylvania Railroad Co., et al.*, Vol. IV.

accordingly again ordered all railways to desist from discriminating between import traffic and domestic traffic, holding that neither ocean competition nor any other circumstance or condition which existed beyond the seaboard in the United States could justify a difference in rates between import traffic and domestic traffic.

The whole matter was finally reviewed in a case brought on appeal before the highest tribunal in the land. The Supreme Court of the United States, in *Texas Pacific Railroad Co. v. The Interstate Commerce Commission*,* held that the Commission had erred in not taking into consideration the ocean transportation as constituting a "dissimilar condition" under the Act, and in holding that no circumstances and conditions which existed beyond the seaboard in the United States could be legitimately regarded by them (the Commissioners) for the purpose of justifying a difference in rates between import and domestic traffic.

In the course of the opinion, from which Justice Harlan, Justice Brown and Chief Justice Fuller dissented, the Court said: "The answer of the Texas and Pacific Railway Company . . . alleges: That rates for the transportation of commodities from Liverpool and London to San Francisco are in effect fixed and controlled by the competition of sail-

* *United States Reports*, Vol. 162.

ing vessels for the entire distance; by steamships and sailing vessels in connection with railroads across the Isthmus of Panama; by steamships and sailing vessels from Europe to New Orleans, connecting there, under through arrangements with the Southern Pacific Company, to San Francisco. That, unless the defendant company charges substantially the rates specified in its answer, it would be prevented, by reason of the competition aforesaid, from engaging in the carrying and transportation of property and import traffic from London and Liverpool to San Francisco, and would lose the revenue derived by it therefrom, which is considerable, and important and valuable to said company. That the rates charged by it are not to the prejudice or disadvantage of New Orleans, and work no injury to that community, because, if said company is prevented from participating in said traffic, such traffic would move *via* the other routes and lines aforesaid without benefit to New Orleans, but, on the contrary, to its disadvantage. That the foreign or import traffic is upon orders by persons, firms and corporations in San Francisco, buying direct of first hands in London, and other European markets; and, if the order of the Commission should be carried into effect, it would not result in discontinuance of that practice or in inducing them to buy in New Orleans in any event. That the result of the order would be to injuriously affect the defendant company in the carriage of arti-

cles of foreign imports to Memphis, St. Louis, Kansas City and other Missouri River points. That by such order the defendant company would be prevented from competing for freight to important points in the State of Texas with the railroad system of that State, having Galveston as a receiving port, . . . These allegations of the answer were not traversed or denied by the Commission, but are confirmed by the findings of the Commission . . . ; and by said findings it further appears that the proportion the Texas Pacific receives of the through rate is remunerative; that the preponderance of empty cars go north during eight months of the year, and if something can be obtained to load, it is that much found, and anything is regarded as remunerative that can be obtained to put in its cars to pay mileage; that the competition which controls the making of rates to the Pacific coast is steamship by way of the Isthmus and in cheap, heavy goods around Cape Horn; that the competition to interior points, such as Missouri River points and Denver, is from the trunk lines direct from the Atlantic seaboard; that the through bill of lading furnishes a collateral for the transaction of business, takes from the shipper and consignee both the care as to intermediate charges, elevators, wharves and cost of handling, and puts it on the carrier, reduces the intermediate charges, very much facilitates the transaction of business, and helps to swell its volume; that the tendency of the

through bill of lading is to eliminate the obstacles between the producer and consumer, and it has done much in that direction.

“These and other uncontroverted facts that appear in this record would seem to constitute ‘circumstances and conditions’ worthy of consideration when carriers are charged with being guilty of unjust discrimination, or of giving unreasonable and undue preference or advantage to any person or locality. . . .

“As we have already said, it could not be supposed that Congress, in regulating commerce, would intend to forbid or destroy an existing branch of commerce, of value to the *Congress did not intend to throttle Trade* common carriers and to the consumers within the United States. Clearly, express language must be used in the act to justify such a supposition.

“So far from finding such language, we read the act in question to direct the Commission, when asked to find a common carrier guilty of a disregard of the act, to take into consideration all the facts of the given case, among which are to be considered the welfare and advantage of the common carrier, and of the great body of the citizens of the United States, who constitute the consumers and the recipients of the merchandise carried, and that the attention of the Commission is not to be confined to the advantage of shippers and merchants who deal at or near the ports of the United States, in articles of domestic

production. Undoubtedly the latter are likewise entitled to be considered; but we cannot concede that the Commission is shut up, by the terms of the act, to solely regard the complaints of one class of the community. We think that Congress has here pointed out that in considering questions of this sort the Commission is not only to consider the wishes and interests of the shippers and merchants of large cities, but to consider also the desire and advantage of the carriers in securing special forms of traffic, and the interest of the public that the carriers should secure that traffic, rather than abandon it or not attempt to secure it. . . .

“Moreover, it must not be overlooked that this legislation is experimental. Even in construing the terms of a statute, courts must take notice of the history of legislation, and, out of different possible constructions, select and apply the one that best comports with the genius of our institutions, and therefore most likely to have been the construction intended by the lawmaking power. Commerce, in its largest sense, must be deemed to be one of the most important subjects of legislation; and an intention to promote and facilitate it, and not to hamper or destroy it, is naturally to be attributed to Congress. The very terms of the statute, that charges must be ‘reasonable,’ that discrimination must not be ‘unjust’ and that preference or advantage to any particular person, firm, corporation or locality must not be ‘undue’ or ‘un-

reasonable,' necessarily imply that strict uniformity is not to be enforced, but that all circumstances and conditions which reasonable men would regard as affecting the welfare of the carrying companies, and of the producers, shippers and consumers, should be considered by a tribunal appointed to carry into effect and enforce the provisions of the act. . . .

"The conclusions that we draw from the history and language of the act, and from the decisions of our own and the English courts, are mainly these: That the purpose of the act is to promote and facilitate commerce, by the adoption of regulations to make charges for transportation just and reasonable, . . . that, in passing upon questions arising under the act, the tribunal appointed to enforce its provisions, whether the Commission or the courts, is empowered to fully consider all the circumstances and conditions that reasonably apply to the situation, and that in the exercise of its jurisdiction the tribunal may and should consider the legitimate interests as well of the carrying companies as of the traders and shippers, and, in considering whether any particular locality is subjected to an undue preference or disadvantage, the welfare of the communities occupying the localities where the goods are to be delivered is to be considered, as well as that of the communities which are in the locality of the place of shipment; that among the circumstances and conditions to be considered, as well in the case of traffic originating

in foreign ports as in the case of traffic originating within the limits of the United States, competition that affects rates should be considered, and in deciding whether rates and charges made at a low rate to secure foreign freights, which would otherwise go by competitive routes, are or are not undue and unjust, the fair interests of the carrier companies and the welfare of the community which is to receive and consume the commodities are to be considered; that if the Commission, instead of confining its action to redressing, on complaint made by some particular firm, corporation or locality, some specific disregard by common carriers of provisions of the act, proposes to promulgate general orders, which thereby become rules of action to the carrying companies, the spirit and letter of the act require that such orders should have in view the purpose of promoting and facilitating commerce, and the welfare of all to be affected, as well the carriers as the traders and consumers of the country.

“It may be said that it would be impossible for the Commission to frame a general order if it were necessary to enter so wide a field of investigation, and if all interests that are liable to be affected were to be considered. This criticism, if well founded, would go to show that such orders are instances of general legislation, requiring an exercise of the law-making power, and that the general orders made by the Com-

*The Commission's
Order in Effect a
Law of Wide Im-
port*

mission in March, 1889, and January, 1891, instead of being regulations calculated to promote and enforce the express provisions of the Act, are themselves laws of wide import, destroying some branches of commerce that have long existed, and undertaking to change the laws and customs of transportation in the promotion of what is supposed to be public policy.

"This is manifest from the facts furnished us in the reports and findings of the Commission.

"It is stated in that report that the Illinois Central Railway Co. averred in its answer that it was constrained by its obedience to the order of March, 1889, to decline to take for shipment any import traffic, and, to its great detriment, to refrain from the business, for the reason that to meet the action of competing lines, it would have to make a less rate on the import traffic than on the domestic.

"Upon this disclosure that their order had resulted in depriving that company of a valuable part of its traffic (to say nothing of its necessary effect in increasing the charges to be finally paid by the consumers), the Commission in its report naïvely remarks: 'This lets the Illinois Central Railway Co. out.'

"We also learn from the same source that there was competent evidence adduced before the Commission, on the part of the Pennsylvania Railroad Co., that that company's compliance with the order of the Commission had resulted in a considerable falling of traffic; that the steamships had never

assented to the Pennsylvania charging its full inland rates (on import traffic); that if it were definitely determined that the road was not at liberty to charge less than the full inland rate, the result would be that it would effectually close every steamship line sailing to and from Baltimore and Philadelphia." At this time the imports at Baltimore aggregated about \$15,000,000 a year, whereas the exports aggregated \$51,000,000.

Very nearly every important decision in which the Interstate Commerce Commission has condemned an American rate practice is open to this criticism made by the Supreme Court in the case under review — that the Commission arrived at its decision by ignoring the rights of all the parties to the controversy excepting the complainant. And that criticism is fatal; for in most of the cases brought before the Commission the conflict has not been between the railways and the people, but between one section of the public and another section of the public, each such section being served by its particular railway or railways.

In obedience to a resolution of the Senate of the United States, the Interstate Commerce Commission,* early in 1903, inquired into the matter of the rates on import and domestic traffic. Upon that occasion the Commission asked Mr. Tuttle, President

* *Reports and Decisions of the Interstate Commerce Commission*, Vol. IX, *In the Matter of Rates on Import and Domestic Traffic*.

of the Boston and Maine Railroad, what effect it would have upon the port of Boston if Congress should enact a law providing that import and domestic rates from ports of entry in the United States to interior points of destination should be the same? The witness replied, "I think, in that event, Boston would ultimately have little use for its export wharves, and might finally turn them into vegetable gardens."

Mr. Tuttle added: "Our outgoing natural products require steamer space greatly in excess of the incoming quantities of foreign goods, and it becomes therefore a commercial necessity that every transportation line leading from each port of entry to the interior of this country do everything in its power to encourage the growth of import business, even to the extent, in emergencies, of joining in through import rates which are of themselves profitless. . . . If we are to sell our goods in the markets of the world, we must furnish export transportation to those markets; we must supply traffic to ocean lines from the ports of the United States to the ports of Europe. If our laws or the custom of our railroads, either by onerous customs duties and regulations or by excessive freight tariffs or by both, make it impossible to buy goods in foreign markets and resell them in our markets, then we shall have no import business; and if we have no import business with which to fill the cargo-carrying capacity of our inbound trans-Atlantic ships, then a higher rate must be levied by them on the outbound

traffic, or they will become profitless and be of necessity discontinued, and our export traffic and the sale of our products abroad will likewise be proportionately discontinued. . . . I think Congress and the people at large should be brought to comprehend that no matter how much this intricate problem of adjusting the relations of import and domestic freight rates may seem, for the moment, to have narrowed itself to one of competition between the seaports and transportation lines, there is involved in it the inestimably larger and more important question whether our great railway system shall have continued freedom to extend and develop our foreign commerce, so that the United States shall ultimately become a more extensive seller of its manufactured as well as of its natural and food products in all the great marts of the world's trade, or shall retrace its steps in the path of international progress upon which it has so profitably and prosperously entered, and erect a Chinese wall along its seacoasts, so that nothing produced abroad shall ever come in, with the inevitably resultant corollary that nothing but such of our food products as the rest of the world absolutely needs shall hereafter go out."

In connection with the concluding words of this quotation it should be borne in mind that in the near future the Argentine wheat is destined to become a much more formidable competitor in Liverpool of American wheat, and that every factor that shall

arrest the decline in the cost of moving American wheat from the farm to Liverpool will redound to the advantage of the Argentine wheat in the coming struggle.

Another witness, the representative of one of the leading trunk lines, stated that the practice under re-
How the Gulf view had become an important agency
Ports are being in developing Brunswick and Savan-
built up nah, Ga., Charleston, S.C., Mobile, Ala., Galveston and Sabine, Tex., and New Orleans into more effective competitors for the export and import trade of the Mississippi Valley and the trans-Mississippi territory. He said: "When you take heavy traffic, if a man is not in a hurry, and frequently he is not, 12 cents a ton — I mean to say 12 cents a ton on the total cost of carriage; that includes your insurance as well — 12 cents a ton will turn that traffic (from one port to another) whether it is going to Chicago or to San Francisco." He added that the traffic covered crockery, cement, salt, plate glass and similar articles, which were so desirable as ballast that vessels sometimes carried them free, and had even at times paid for the privilege of carrying them.

At the hearing which the Commission held in New York, the manager of the Vulcanite Portland Cement Co., of Vulcanite, N. J., complained that the discrimination in favor of cement imported on through bills of lading often entirely offset the customs duty on

cement; at the hearing in Washington a representative of the Pittsburg Plate Glass Co. made a similar complaint; and at the hearing in Chicago the general freight agent of the Illinois Central Railroad Co. showed that salt had often been shipped from Liverpool through New Orleans to Chicago for a charge less than that made on domestic salt from New Orleans to Chicago.

Had the Interstate Commerce Commission been permitted to stop the practice of discriminating in favor of commodities imported on through bills of lading, the American manufacturers of crockery, cement and plate glass would have one grievance less; but Boston, Philadelphia, Baltimore, Newport News and New Orleans would be but feeble competitors of New York, while Brunswick, Charleston, Savannah, Mobile and Galveston would be little more than names on the map. Furthermore, every producer and consumer in the interior of the United States would be less well off than he is; for the rivalry of the competing ports, each served by its line or lines of railway, has been the most important factor not only in reducing railway rates, but also in reducing the commissions and the warehouse charges made by the exporters of our farm products and the importers of the articles of foreign origin consumed by the people of the United States. Since the railways leading from the trans-Mississippi territory to the Gulf ports have become effective competitors for the carriage of

grain for export, the difference between the price of grain on the American farm and the price of grain in Liverpool has been materially reduced—to the advantage of the American farmer.*

In 1899 the Interstate Commerce Commission † once more investigated the relative rates on grain for domestic use and grain for export. *The Commission versus the Western Farmer* This time it responded to certain resolutions of the Chicago Board of Trade, passed in the interest of the Chicago commission merchants, who were middlemen between the American farmer and the European consumer, and were being crowded out through the economies and railway-rate practices which the railways leading to the Atlantic seaboard by way of Chicago had adopted, in order to meet the competition of the railways leading to the Gulf ports.‡ Those economies and railway-rate practices have been described at length in a preceding chapter.

The Interstate Commerce Commission said: “. . . Conditions may [at times] justify the existence of a lower rate for export than for domestic use, but in the absence of such conditions we cannot concur

* *Report of the Industrial Commission on the Distribution of Farm Products*, pp. 7-10 and 70-77; and *Report of the Industrial Commission on Agriculture and Agricultural Labor*, pp. 295-300.

† *Interstate Commerce Commission Reports*, Vol. VIII, *In the Matter of Export Rates from Points East and West of the Mississippi River*, and *In the Matter of Relative Rates upon Export and Domestic Traffic in Grain and Grain Products and of the Publication of Tariffs relating to Such Traffic*.

‡ *The Railroad Gazette*, January 27, August 18 and September 8, 1899.

in the idea that any permanent system of rates which renders a service for the foreigner at a less price than is paid by the American can be just to the American; nor would we permit the continuance of such a system if we had the power to prevent it." The Commission a moment before had stated that, under the ruling of the Supreme Court in *Texas and Pacific Railroad v. Interstate Commerce Commission*,* it was constrained to hold that, as a matter of law, the Act to Regulate Commerce did not prohibit every discrimination between freight carried for export and freight carried for domestic use, but only unjust discrimination. It now went on to say: ". . . The question for our consideration is therefore one of fact, and seems to be, upon this branch of the case, whether the present adjustment of export and domestic rates discriminates against the domestic consumer in favor of the foreign consumer. What reason is there why the foreigner who eats our wheat should have it transported from the Mississippi River to New York for 12 cents a hundred pounds, while the American is obliged to pay 19.5 cents for the same service.

"The Supreme Court in the *Import Rate Case* has laid down the rule which should guide the Commission in the determination of that question. It is not every discrimination which is forbidden by the Act to Regulate Commerce, but only unjust discrimination;

* *United States Reports*, Vol. 162.

and the court holds that, in determining whether a discrimination is in fact unjustifiable, the interests of all parties involved must be considered. The parties involved in this case are the producer of grain, the domestic consumer and the inland carrier; we are not concerned with the foreign consumer."

By means of erroneous reasoning, reviewed at length in a previous chapter, the Commission next arrived at the conclusion: "That the American producer has derived no substantial benefit from these rates; that the American carrier has lost enormously by them and that the foreigner alone has had the benefit of them. . . . It is impossible more strongly to emphasize the folly of the whole proceeding than by the mere statement of it. . . . There are perhaps two kinds of injury which follow from the maladjustment of freight rates. One is, so to speak, an indirect injury to the community as a whole; the other a direct injury to some particular individual or industry. The Act to Regulate Commerce was undoubtedly intended to cover both classes; still, it is the direct injury which appeals more strongly to the sense of right and wrong, and demands more loudly some immediate redress. In this case it would not be right, in the absence of some justifying reason, for American railroads to permanently transact business for foreigners at a less rate than that for which they render a corresponding service to American citizens. *Such a course is wrong nevertheless if*

no individual and no community can say it is injured and point out the extent of that injury. No such permanent condition should be tolerated. If such a condition had become or were likely to become permanent, we should deem it our duty to attempt some redress. The testimony in this case indicates that such is not the case. The carriers recognize the fact that these export rates are altogether too low in proportion to domestic rates. They are the chief losers by the course now adopted. That course is the result of competitive conditions which in the end will probably work out some rational basis upon which this traffic is to be handled."

In 1895, the farmers of the United States increased the area under corn by 19,500,000 acres, or 31 per cent.

"Theories of Social Progress"
versus *Conditions and Facts*

In 1897 and 1898 they increased the area under wheat by 9,500,000 acres, or 27 per cent. For a large part of the enormous crops corresponding

to these figures it was necessary to find a market abroad. In the period 1890-95 the United States had exported 59,000,000 bushels of corn a year, or 3.3 per cent of its corn crop; in the period from 1896 to 1901 those figures became respectively 177,000,000 bushels, and 8.6 per cent. The exports of wheat increased from an annual average of 145,000,000 bushels in 1893-96 to an annual average of 210,000,000 in 1897-1900. It is obvious that these enormously augmented quantities of grain could not be thrown

upon the Liverpool market without breaking the price. It was therefore a most happy combination of circumstances that in the period from 1896 to 1900, and especially in 1899 and 1900, our export rates on grain were exceptionally low, because of the competition between the railways leading from the West to the Gulf and to the Atlantic seaboard respectively.

The farm price of wheat broke in 1898 and the subsequent years, but it did not fall to the low level of 1893-95 — thanks, in part, to the great reduction in the charge made for moving the wheat from the farm in America to the market in Liverpool. Of these facts the Interstate Commerce Commission took no cognizance; indeed, in all probability it never occurred to the Commission to inquire into the realm of facts here indicated. One of the most characteristic things about the Interstate Commerce Commission has been that it has repeatedly condemned great American rate practices without adequate inquiry into the part played by those practices in the development of the resources, the trade and the industry of our country. It has rendered decisions and issued orders that in effect were national acts of legislation, and that would have destroyed great branches of established trade, when those decisions and orders were founded on nothing more than some fantastic theory invented for the occasion and in conflict with the established law of

our country and the genius of our institutions. Such a theory was the one that the policy of protection to our infant industries forbade the railways discriminating permanently in favor of agricultural products carried for export, lest the foreign manufacturer be given an undue advantage over the American manufacturer. Another such theory was the one that a rate practice might be unlawful, though no individual and no community could say it was injured by it and point out the extent of that injury.

It is for this reason that the Supreme Court of the United States has reversed the decisions of the Interstate Commerce Commission time and again upon questions of law and upon questions of fact, and has taken occasion to express emphatically its disapproval of the economic policy that has underlain the decisions of the Commission. The Interstate Commerce Commission has sought to construe the Act to Regulate Commerce and to estimate the evidence as to questions of fact arising in cases involving that Act under the guidance of what it has been pleased to term "theories of social progress" — theories which were neither a part of the established law of the land nor in conformity with the genius of our institutions. The Supreme Court, on the other hand, has held that the Act to Regulate Commerce must be construed in conformity to the established law, and that the evidence adduced for the determination of questions of fact arising under the Act must

be estimated and weighed in the spirit of the law of the land. That is why the Supreme Court has overruled the Commission on questions of law, as well as on questions of fact.

In conclusion, it will not be amiss to add that discriminating rates in favor of traffic carried for export were an important aid to the men who increased our exports of iron and steel from 57,000 tons in 1896 to 281,000 tons in 1897, to 469,000 tons in 1898 and to 578,000 tons in 1899; that they are at the present moment an important aid to the manufacturers of Pennsylvania and the cotton manufacturers of New England, who compete in the Orient, with the aid of our transcontinental railways, with the manufacturers of England, Belgium and Germany, who ship by way of the Suez Canal; that they are an important aid to the California fruit-grower who ships fruit to Europe by way of the Atlantic ports; and that they are an important aid to the lumber and planing mills at the Southwest which ship window sashes, doors, etc., to Scotland and England.

CHAPTER VI

THE DECISIONS OF THE INTERSTATE COMMERCE COMMISSION (CONTINUED)

The Long- and Short-haul Clause

LET us consider next the Interstate Commerce Commission's condemnation of another great American rate practice: the so-called competitive-point, or basing-point, system. As that system has been described in a preceding chapter, it will suffice to add that it was admirably adapted to the needs of the United States — a virgin country with a sparse population and a limited supply of capital, whose several sections differed enormously in resources and in capacity for development. Obviously it was good public policy to apply our limited population and capital to the development of those resources, regions and cities which promised to respond most quickly to efforts at development. It was sound policy to discriminate, to develop first our most promising fields; and as these became exhausted, and the supply of labor and capital increased, to turn to the development of the less promising fields. That was

why we began as an agricultural and pastoral people; then turned to the cruder kinds of manufacturing, such as the manufacture of lumber and pig iron; then turned to the manufacture of the coarser cotton and woollen cloths; and finally, to the manufacture of silks.

The railways pursued the same course: they developed first the most promising resources, the most promising cities; and then they turned to the less promising ones — that is, they discriminated. The intelligence which our railways exercised in that discrimination, the imagination which they displayed in discovering resources and possibilities of trade, and the courage and energy with which they acted upon their discoveries have been their distinguishing characteristics. In these matters the railways coöperated with the American people, promoting their immediate as well as their permanent interests; they did not go counter to the people's interests, temporary or permanent. The policy of the railways in making rates was not governed by a fixed rule, such as a distance tariff; the rates were made as occasion arose, and so as to meet the needs of the occasion; they manifested but one overruling principle — the development of industry and trade wherever such development was practicable. In this way the railways have developed trade between the most distant parts of the United States, until they have made our country "one in its business enterprises and a unit in its business activi-

ties," and have carried the utilization of its resources to such a pitch as to make it to Europe a source of wonder and despair.

When one of the most important rate practices by means of which our railways accomplished these things, the competitive-point or basing-point system, was brought before the Interstate Commerce Commission, that body condemned it in all instances excepting those in which could be proved the presence of actual water competition or the competition of a Canadian railway. It refused to exercise the power of discretion which the so-called long- and short-haul clause of the Act to Regulate Commerce had bestowed upon it. It developed the doctrine that railway rates may not be adjusted to each other on "commercial considerations," but that such adjustments must conform strictly to differences in the costs of the services for which the respective rates were made. In conformity with that doctrine it interpreted the so-called long- and short-haul clause and estimated the evidence adduced in connection with questions of fact arising under that clause. The Supreme Court, however, could find no warrant for that doctrine in the established law of the land or in the genius of our institutions, and therefore it reversed the decisions of the Commission on questions of law and questions of fact.

Shortly after the Interstate Commerce Commission had been appointed, it considered, upon the petition

of the Vermont State Grange of the Patrons of Husbandry, the question whether the Central Vermont Railroad Co. was violating the long- and short-haul clause, by charging more for the carriage of freight from Boston to Detroit and other western points than for the carriage of freight from Boston to St. Albans and other local points in Vermont.* The question turned on whether the two kinds of traffic were carried "under substantially similar conditions and circumstances."

In the course of the opinion the Commission said: "What is important is the fact that the through business is a necessity to the Central Vermont, if it is to maintain its present state of efficiency. The strictly through tonnage over it for the year ending June 30, 1886, was 79 per cent of all; the strictly local tonnage was but $5\frac{1}{4}$ per cent, while what is denominated in the evidence joint freight, that is to say, freight received at points on the line from points beyond its termini, or taken up at local points to be transported beyond the termini, was $15\frac{3}{4}$ per cent. It is very evident from these figures that neither on the local traffic alone nor on that and the joint traffic can a first-class road be maintained. It is therefore the right, and we may say the duty, of the managers of the Central Vermont to obtain and keep up a through business if

* *Boston and Albany Railroad Co. v. The Boston and Lowell Railroad Co., et al.*, in *Decisions of the Interstate Commerce Commission*, Vol. I.

they can do so without injustice to the local traffic and without violation of law.

“No injustice is done to the local traffic by taking through traffic at very low rates, provided the doing so neither makes the local traffic more expensive nor otherwise incommodes it. The defendants put in evidence to show (1) that the rates on local traffic are not out of proportion to those charged on through traffic, it being very much more expensive to handle an equal amount of the former than of the latter; (2) that the through traffic is not carried at a loss, but there are net gains from it in the aggregate exceeding those on the local and joint traffic put together, and that it is by means of these gains that the efficiency of the road is maintained; (3) that the rates on the through traffic cannot be materially advanced without losing it, and (4) that the company cannot afford to reduce the rates on the local traffic. There was strong evidence in support of all these propositions. We are entirely satisfied that a large through business is essential to this line if it is to continue to be a useful line even for local business. We are also satisfied that the people of Vermont are largely interested in the low rates on the long-haul traffic, not only because to some extent they send manufactured articles to distant points, but much more because Vermont relies very largely on the West for grain, flour, meats and provisions. It is highly probable that if the people of that State pay high rates on local traffic,

they are fully compensated in the low rates on long-haul traffic. A board having full power to adjust rates as circumstances should seem to require, might perhaps so hold.

“But our power in this regard is restricted by the terms of the law which absolutely forbids a carrier ‘to charge or receive any greater compensation in the aggregate for the transportation of passengers or of like kind of property under substantially similar circumstances and conditions for a shorter than for a longer distance over the same line in the same direction, the shorter being included within the longer distance.’* This is the law which governs our actions, and it cannot be departed from by us on considerations of equity, or of what would be for the interest of parties concerned. If parties complain of a violation of the law, we can only pass upon the charge preferred, and our action cannot be affected by the circumstance that the rates as adjusted are on the whole to their advantage. They must judge of their interest, while we are to judge of the violations of law which are complained of.”

* This quotation is incomplete ; there is no full stop after the word “distance.” The clause reads : “. . . the shorter haul being included within the longer distance ; but this shall not be construed as authorizing any common carrier within the terms of this act to charge and receive as great compensation for a shorter as for a longer distance : *Provided, however,* that upon application to the Commission appointed under this act, such common carrier may, in special cases, after investigation by the Commission, be authorized to charge less for longer than for shorter distances for the transportation of passengers or property ; and the Commission may from time to time prescribe the extent to which such designated common carrier may be relieved from the operation of this section of this act.”

The Commission then went on to say that the main reliance of the defendants, to prove that the through freight and the local freight were not carried "under substantially similar conditions and circumstances," was the existence of competition for the through traffic and the absence of competition for the local traffic. On this point the Commission said: "The principal difference must be found in the fact that the Trunk Lines have interior or shorter lines as compared with the line of the defendants, and the latter are compelled, therefore, to make very low rates on their through traffic. This is a necessity of the situation. But it is a necessity which exists wherever long and short lines compete; the long line must accept the rates made by the short line, and perhaps make concessions from them. In this respect there is nothing peculiar in the position of these defendants; there are roads in every part of the country which can make the same claim they do with the same justice. It is a claim that could be advanced wherever a route, however circuitous, could be formed for long-haul traffic. A line from Boston to Detroit, for example, might be formed by way of the Chesapeake and Ohio Railway, and one from Chicago to St. Louis by way of St. Paul. The greater the departure from a direct line, the greater would commonly be the necessity for lower rates on through traffic, and the greater the liability to have the charges on the local traffic increased to make the carriage of through traffic pos-

sible. But, without enlarging on this branch of the case, we content ourselves with saying that such peculiar facts are not found to exist in this case as will justify the greater charge over the shorter line.

“ . . . In performing this duty we neither do, nor with propriety can, express opinion upon the intrinsic reasonableness or justice of the rates heretofore imposed, except to this extent, that we do not think it was shown by the evidence that when the local tariffs are made to conform to the letter of the law as above directed they will be unreasonable.”

This decision, which was delivered by Judge Cooley, the Chairman of the Interstate Commerce Commission, and was, by implication, completely reversed by the Supreme Court in *East Tennessee, Virginia and Georgia Railway Co., et al., v. Interstate Commerce Commission*,* constitutes a powerful argument in support of the contention that the making of railway rates by public authority must inevitably destroy all elasticity of the rates, by reducing the rates to a cast-iron system that knows no discretion. The Interstate Commerce Commission was afraid that, if it suspended the operation of the long- and short-haul clause in this case, — and it obviously was to the interest of all parties that the clause should be suspended, — it would open the “Pandora’s box.” Thousands of requests for suspension would be made, and in the case of many of those requests it would

* *United States Reports*, Vol. 181.

prove extremely difficult to "draw the line." Rather than undertake such an ungrateful, not to say odious, task the Commission chose to punish the Vermont Central for promoting the interests of the people of St. Albans.

The unwillingness of the Interstate Commerce Commission to take hold of "troublesome" problems continues to the present day. In April, 1901, in *Holdzkom v. Michigan Central* (I. C. R. 9), the Commission expressed its disapproval of the efforts of the northern transcontinental lines to obtain a share in the traffic to Los Angeles. It said: "Merchandise by these (northern) sea and rail routes must be transported across the continent, transshipped, carried 1200 miles by ocean and again transshipped for another 20 miles' haul by rail before it reaches the point where it competes with the all-rail lines of the Santa Fé and the Southern Pacific. While undoubtedly traffic may be and at times actually is, and perhaps ought to be, carried by these roundabout routes, this is not the rule; and there is perhaps no better remedy for that species of folly than the rigid enforcement of the principle of the fourth section. Such competition introduces a troublesome factor into the making of these transcontinental rates, and we should hesitate to hold that this of itself justified the charging of a higher rate at an intermediate point like San Bernardino."

This last suggests the notion that the efforts of railways to increase their business (which does not seem to them to be "folly") are not to be carried so far as to make perplexing problems for public administrative officers. Not long ago a Prussian minister, sadly harassed by transportation difficulties, blurted out, — "Commerce be hanged."

If the doctrine that a roundabout railway, of which 79 per cent of the freight was through freight, carried, of necessity, at rates lower than those charged by the more direct railway, might not reduce its through rates below the rates charged to local points had been enforced from the close of the Civil War, railway building would have been retarded by decades. Numberless communities that have been served by roundabout railways since an early date would have remained for decades without any railway whatever.

In *James and Mayer Buggy Co. v. The Cincinnati, New Orleans and Texas Pacific Railway Co., et al.*,* the railways sought to justify the charging of a lower rate from Cincinnati to Augusta than from Cincinnati to Social Circle, an intermediate point, by saying that the presence of competition for the market at Augusta, and absence thereof at Social Circle, caused the traffic of Cincinnati with Augusta and Social Circle respectively to be carried under dissimilar circumstances and conditions. At Baltimore and other seaboard

* *Decisions of the Interstate Commerce Commission*, Vol. IV.

cities these were large manufactories of buggies and carriages which could deliver their products to Augusta at prices which the manufactories at Cincinnati could not meet, unless the railways leading from Cincinnati were allowed to make rates to Augusta that would be unremunerative* if extended to Social Circle and other local points for the trade of which the Baltimore manufacturers found it not worth while to compete actively. The Commission replied that there was no contention that the alleged difference in circumstances and conditions had any relation to the cost of transportation; and that the defendants sought to bring themselves within the exceptional conditions of the statute, because of the competition between Cincinnati and eastern cities for the buggy and carriage trade of the Augusta market. Said the Commission: “. . . Independent of the rate to shorter-distance points on their lines, defendants insist they may lawfully make such lower rate to the longer-distance point as will prevent eastern manufacturers more advantageously located from taking the Augusta market from Cincinnati manufacturers. The right to make the lower charge for the longer distance is averred to be necessary to secure the transportation of carriages from Cincinnati, which, without the advantage of such lower charge, would come from the factories of eastern makers.

* Unremunerative in the sense that the reduction in rates would not stimulate trade.

“ . . . The fact that Cincinnati makers ship their product to a market in which they are in the matter of transportation at such disadvantage in competition with their rivals, shows that the question of competing in the Augusta carriage market involves and depends upon commercial and other conditions than such as affect freight charges.

“If the contention of the defendants is justified by the statute, and they can avail themselves of its exceptional provision and charge more for the shorter distance for the purpose of equalizing commercial conditions and trade relations between the cities of Cincinnati and Baltimore in the Augusta market, the same thing may be done to place Cincinnati carriage makers on an equal footing with those of Augusta in the Augusta market, or to relieve any city from any disadvantage in markets of other cities, or to deprive all cities or places of production of any advantage resulting from location. Such an interpretation would make the fourth section of the Act practically inoperative, and with such a license in rate making, carriers might give advantage to or build or destroy the carriage or other business of any city or locality.

“The circumstances and conditions which would justify a lower rate from Cincinnati to Augusta than to Social Circle, must have relation to the nature and character of the service rendered by the carrier in the transportation between Cincinnati and the places on the same line. . . .”

The Interstate Commerce Commission thus condemned as monstrous the railway-rate practice that *The Doctrine that Distance must not be annihilated* would be ideal; for the ideal system would relieve every city from every disadvantage in the markets of other cities, and would deprive all cities or places of production of all advantages resulting from their location. The sole reason why man uses the railway is that it is the most effective agency at his command for the annihilation of space and distance, and it is to be hoped that in course of time the railway or some other means of transportation will become so efficient as actually to annihilate distance. The one thing that distinguishes the American railway managers from the railway managers of the rest of the world is the success with which they have relieved cities or places of production of disadvantages resulting from their location. Before the American railway managers had put off their swaddling clothes, they had learned to make their charges all but exclusively upon "commercial" considerations, and with complete disregard of relative costs of transportation. By that means they produced a degree of competition between rival producing and distributing centres not even distantly approached in other countries, "made the United States one in their business enterprises, and a unit in their business activities," and produced wonderful results in the utilization of the resources of the United States. With utter disregard of these

facts, the Interstate Commerce Commission proposed to adjust rates upon the absolutely wooden principle of the respective costs of handling different kinds of traffic. It is an illustration of the irony of fate that the most "practical" nation in the world, which has succeeded in welding one of the vastest expanses of land in existence into a more compact trading-unit than is to be found even among the comparatively small States of Europe, should, at the same time, have produced an administrative body which advocates a "yardstick" method of adjusting railway rates that would break up the country into innumerable small areas, each one of which would be more isolated from the others, as well as more jealous of the others, than were the American colonies when they were erecting customs barriers against one another, "mutually oppressing each other's industries." Language, as well as imagination, breaks down under the effort to conceive the political demoralization and the industrial chaos that would result, should the Interstate Commerce Commission, or any other body, be given the power to prescribe where the manufacturer may and where he may not sell his wares.

Of course the liberty to enable a producer or trader, wherever located, to sell his wares in any market, wherever located, does not confer upon railways "the license to give advantage to or build or destroy the carriage or other business of any city or locality." Nor is there any ground for fearing that such liberty

will degenerate into license. In the 18 years in which the Interstate Commerce Commission has been administering the Act to Regulate Commerce, there have been brought before that tribunal only two cases in which even a person habitually and morbidly distrustful of the railways would be justified in the suspicion that the rate complained of had been made from sinister motives. The Chairman of the Interstate Commerce Commission, testifying before the late Industrial Commission on the subject of personal discriminations,—where, if anywhere, one would expect to find rates made from sinister motives,—stated that there never had been brought to his knowledge a railway rate made in bad faith.

This, of course, does not mean that there are not in the United States many railway rates as to the relative reasonableness of which there is room for great difference of opinion. To quote from the testimony of Mr. E. P. Ripley, President of the Atchison, Topeka and Santa Fé, before the late Industrial Commission: The adjustment of rates between competing markets and rival producing and distributing centres is “one of the greatest problems, and never settled satisfactorily; that is, somebody is always disgruntled. With the best of intentions on the part of the railways, it always ends in compromise, not satisfactory to anybody, and very unsatisfactory to a great many. Each railroad is interested in a particular part or in a particular locality, and each is

fighting for the supremacy of that particular part or district, and the result must be ultimately a compromise. Everything we have to-day is a compromise between opposing ideas (interests). . . . In fact, there have been so many opposing interests, that it has been impossible to do anything very unfair; but it is not an exact science. It is all a matter of compromise and of judgment."

In August, 1893, the Interstate Commerce Commission held that the rates made by certain railroads *The Carriers are to Troy, Ala., were relatively un-*
the Best Judges of just to that city, when compared with
Rates those to Montgomery, Ala., and that the injustice arose from the practice of basing the Troy rates on the rates to Montgomery as a "trade centre" or basing point.* Said the Commission, "The fact, therefore, insisted upon by counsel for the roads as a matter of defence, that Montgomery is a much larger city with more extensive business interests than Troy, and is and has been treated by the roads in making rates to Troy and other surrounding towns as a 'trade centre' or 'basing-point,' is no justification for discrimination in those rates in favor of Montgomery."

The defendants also sought to justify their rates by pleading water competition at Montgomery via

* *The Board of Trade of Troy, Alabama, v. The Alabama Midland Railway Co., et al.*, in *Decisions of the Interstate Commerce Commission*, Vol. VI.

the Alabama River. To that plea the Commission replied: "The mere fact that a point is situated upon a navigable stream does not of itself justify the lesser charge for the longer haul to such point, . . . in order to justify such lesser charge, the water competition must control the carriage of the traffic on which the discrimination is made."

The defendants failed to heed the orders of the Commission based upon the foregoing findings. Thereupon the Commission filed a bill of complaint in the circuit court of the United States for the Middle District of Alabama, in equity, to compel obedience to its orders. On the hearing in that court the bill of complaint was dismissed, whereupon the complainant, the Interstate Commerce Commission, appealed the cause to the United States circuit court of appeals for the fifth judicial circuit at New Orleans, La. The decree of the circuit court was affirmed; and from that judgment the appellant appealed to the Supreme Court of the United States.*

The Supreme Court, in the course of the opinion affirming the decree of the circuit court of appeals, said: "It is contended in the briefs filed on behalf of the Interstate Commerce Commission that the existence of rival lines of transportation, and consequently of competition for the traffic, are not facts to be considered by the courts when determining

* *United States Reports*, Vol. 168, *Interstate Commerce Commission v. Alabama Midland Railway Co., et al.*

whether property transported over the same line is carried under 'substantially similar circumstances and conditions,' as that phrase is found in the fourth section of the Act. . . .

"In order further to guard against any misapprehension of the scope of our decision, it may be well to observe that we do not hold that the mere fact of competition, no matter what its character or extent, necessarily relieves the carrier from the restraints of the third and fourth sections, but only that these sections are not so stringent and imperative as to exclude in all cases the matter of competition from consideration, in determining the questions of 'undue or unreasonable preference or advantage,' or what are 'substantially similar circumstances and conditions.' The competition may in some cases be such as, having due regard to the interests of the public and of the carrier, ought justly to have effect upon rates, and in such cases there is no absolute rule which prevents the Commission or the courts from taking that matter into consideration. . . .

"As the third section of the Act, which forbids the making or giving any undue or unreasonable preference or advantage to any particular person or locality, does not define what, under that section, shall constitute a preference or advantage to be undue or unreasonable, and as the fourth section, which forbids the charging or receiving greater compensation in the aggregate for the transportation of like kinds

of property for a shorter than for a longer distance over the same line, under substantially similar circumstances and conditions, does not define or describe in what the similarity or dissimilarity of circumstances and conditions shall consist, it cannot be doubted that whether, in particular instances, there has been an undue or unreasonable prejudice or preference, or whether the circumstances and conditions of the carriage have been substantially similar or otherwise, are questions of fact, depending on the matters proved in each case. . . .

“The circuit court of appeals, in affirming the decree of the circuit court, used the following language: ‘. . . The volume of population and of business at Montgomery is many times larger than it is at Troy. There are many more railway lines running to and through Montgomery, connecting with all the distant markets. The Alabama River, open all the year, is capable, if need be, of bearing to Mobile, on the sea, the burden of all the goods of every class that pass to or from Montgomery. The competition of the railway lines is not stifled, but is fully recognized, intelligently and honestly controlled and regulated by the traffic association in its schedule of rates. There is no suggestion in the evidence that the traffic managers who represent the carriers that are members of that association are incompetent, or under the bias of any personal preference for Montgomery or prejudice against Troy, that has led

them, or is likely to lead them, to unjustly discriminate against Troy. When the rates to Montgomery were higher a few years ago than now, actual active water-line competition by the river came in, and the rates were reduced to the level of the lowest practical paying water rates; and the volume of carriage by the river is now comparatively small; but the controlling power of that water line remains in full force, and must ever remain in force as long as the river remains navigable to its present capacity. And this water line affects, to a degree less or more, all the shipments to or from Montgomery from or to all the long-distance markets. . . . The volume of trade to be competed for, the number of carriers actually competing for it, a constantly open river present to take a large part of it whenever the railroad rates rise up to the mark of profitable water carriage, seem to us, as they did to the circuit court, to constitute circumstances and conditions at Montgomery substantially dissimilar from those existing at Troy, and to relieve the carriers from the charges preferred against them by its board of trade. We do not discuss the third and fourth contentions of the counsel for the appellant further than to say that within the limits of the exercise of intelligent good faith in the conduct of their business, and subject to the two leading prohibitions that their charges shall not be unjust or unreasonable, and that they shall not unjustly discriminate so as to give undue preference

or disadvantage to traffic or persons similarly circumstanced, the Act to Regulate Commerce leaves common carriers, as they were at the common law, free to make special rates looking to the increase of their business, to classify their traffic, to adjust and apportion their rates so as to meet the necessities of commerce and of their own situation and relation to it, and generally to manage their important interests upon the same principles which are regarded as sound, and adopted in other trades and pursuits. The carriers are better qualified to adjust such matters than any court or board of public administration, and, within the limits suggested, it is safe and wise to leave to their managers the adjusting or [of] dissimilar circumstances and conditions to their business.'

"The last sentence in this extract is objected to by the Commission's counsel, as declaring that the determination of the extent to which discrimination is justified by circumstances and conditions should be left to the carriers. If so read, we should not be ready to adopt or approve such a position. But we understand the statement, read in the connection in which it occurs, to mean only that, when once a substantial dissimilarity of circumstances and conditions has been made to appear, the carriers are, from the nature of the question, better fitted to adjust their rates to suit such dissimilarity of circumstances and conditions than courts or commissions; and when we consider

the difficulty, the practical impossibility, of a court or a commission, taking into view the various and continually changing facts that bear upon the question, and intelligently regulating rates and charges accordingly, the observation objected to is manifestly just. But it does not mean that the action of the carriers, in fixing and adjusting the rates, in such instances, is not subject to revision by the Commission and the courts, when it is charged that such action has resulted in rates unjust or unreasonable, or in unjust discriminations and preferences. . . .

“Coming at last to the questions of fact in this case, we encounter a large amount of conflicting evidence. It seems undeniable, as the effect of the evidence on both sides, that an actual dissimilarity of circumstances and conditions exists between the cities concerned, both as respects the volume of their respective trade and the competition, affecting rates occasioned by rival routes by land and by water. Indeed, the commission itself recognized such a state of facts by making an allowance in the rates prescribed for dissimilarity resulting from competition; and it was contended on behalf of the Commission, both in the courts below and in this court, that the competition did not justify the discrimination against Troy to the extent shown, and that the allowance made therefore by the Commission was a due allowance.

“The issue is thus restricted to the question of the preponderance of the evidence on the respective sides

of the controversy. We have read the evidence disclosed by the record, and have endeavored to weigh it with the aid of able and elaborate discussions by the respective counsel.

"No useful purpose would be served by an attempt to formally state and analyze the evidence, but the result is that we are not convinced that the courts below erred in their estimate of the evidence, and that we perceive no error in the principles of law on which they proceeded in the application of the evidence."

The Supreme Court once more construed the third and fourth sections of the Act to Regulate Commerce in *East Tennessee, Virginia and Georgia Railway Co., et al., Appellants, v. Interstate Commerce Commission*.* Certain southern railways, in connection with steamship companies operating between the North Atlantic ports and the southern ports, were carrying freight to Nashville, Tenn., by way of Chattanooga, in competition with the all-rail lines leading from the North to Cincinnati, and thence by way of the Louisville and Nashville to Chattanooga. The Interstate Commerce Commission had found † that the rate to Nashville was fixed by the

* *United States Reports*, Vol. 181. Compare also: Vol. 175, *Louisville and Nashville Railroad Co., et al., Appellants, v. Henry W. Behlmer*.

† *The Board of Trade of Chattanooga v. The East Tennessee, Virginia & Georgia Railway Co., et al.*

all-rail lines reaching that city by way of Cincinnati, and that the southern lines reaching Nashville by way of Chattanooga had no voice or influence in the determination of the rate to Nashville. The southern lines, it had found, were under compulsion to meet the rates established by the northern lines, in connection with the Louisville and Nashville, or to leave the northern carriers in undisputed possession of the entire traffic. That alternative meant the loss of revenue obtained from the large percentage of Nashville business which they had been securing. The Commission had ordered the southern roads to desist from charging more to Chattanooga, the lesser distance, than to Nashville, the longer distance. But it intimated to the railways that, if they would lower their rates to Chattanooga, so that they would be relatively reasonable to that place, it (the Commission) would consider an application for suspension of the long- and short-haul clause. As the railways failed to obey the order of the Commission, proceedings to compel obedience were begun in the circuit court and carried thence to the circuit court of appeals for the sixth circuit.

The Supreme Court said: “. . . It is at once apparent that the contentions (of the Interstate Commerce Commission) divide themselves into two classes: the first, a proposition of law involving the construction of the Act to Regulate Commerce, and the others embracing ultimate deductions from the

facts proven. The legal proposition is this: that where, in consequence of competitive conditions existing at a particular point, the dissimilarity of circumstance provided in the fourth section of the act arises, it cannot justify a carrier on his own motion (*i.e.* without special dispensation from the Commission) in charging a lesser rate for the longer haul to the competitive point than is asked for the shorter haul to the non-competitive point, if in doing so a preference in favor of the competitive point arises or a discrimination against the non-competitive point is produced. That is to say, it is insisted that the provision as to substantially dissimilar circumstances and conditions of the fourth section and the commands of the third section as to discrimination and undue preference, being found in the one statute, must be construed together, so that the dissimilarity of circumstance and condition cannot be availed of if either discrimination or preference will arise from doing so. We quote the exact language in which this proposition is stated by counsel, reproducing the italics by which the import of the contention is emphasized: —

“Fifth. That the injury or prejudice to Chattanooga, shown by the proof to be the effect of the discriminations practised against Chattanooga and in favor of Nashville, *brings the case within the evil which the Act to Regulate Commerce was designed to remedy, and that competition, no matter how force-*

ful, should not be held to nullify the law itself, — in other words, should not be held to justify the very wrongs which the law was enacted to remedy.’ . . .

“But in substance this reasoning only amounts to the assertion that the settled construction of the statute, by which it has been held that real and substantial competition gives rise to the dissimilarity of circumstance and condition pointed out in the fourth section is wrong, and should be overruled. . . .

“It is not difficult to perceive the origin of the fallacy upon which the contention rests. It is found in blending the third and fourth sections in such a manner as necessarily to destroy one by the other, instead of construing them so as to cause them to operate harmoniously. In a supposed case when, in the first instance, upon an issue as to a violation of the fourth section of the act, it is conceded or established that the rates charged to the shorter distance point are just and reasonable in and of themselves, and it is also shown that the lesser rate charged for the longer haul is not wholly unremunerative, and has been forced upon the carriers by competition at the longer distance point, it must result that a discrimination springing alone from a disparity in rates cannot be held, in legal effect, to be the voluntary act of the defendant carriers, and as a consequence the provisions of the third section of the act forbidding the making or giving of an undue or unreasonable preference or advantage will not apply. The pro-

hibition of the third section, when that section is considered in its proper relation, is directed against unjust discrimination or undue preference arising from the voluntary and wrongful act of the carriers complained of as having given undue preference, and does not relate to acts the result of conditions wholly beyond the control of such carriers. And special attention was directed to this view in the *Behlmer Case*, in the passage which we have previously excerpted. To otherwise construe the statute would involve a departure from its plain language, and would be to confound cause with effect. For, if the preference occasioned in favor of a particular place by competition there gives rise to the right to charge the lesser rate to that point, it cannot be that the availing of this right is the cause of the preference; and especially is this made clear in the case supposed, since it is manifest that forbidding the carrier to meet the competition would not remove the discrimination.

“The only principle by which it is possible to enforce the whole statute is the construction adopted by the previous opinions of this court; that is, that competition which is real and substantial, and exercises a potential influence on rates to a particular point, brings into play the dissimilarity of circumstances and condition provided by the statute, and justifies the lesser charge to the more distant and competitive point than to the nearer and non-competitive place, and that this right is not destroyed

by the mere fact that incidentally the lesser charge to the competitive point may seemingly give rise to a preference to that point, and the greater rate to the non-competitive point may apparently engender a discrimination against it. We say seemingly on the one hand and apparently on the other, because in the supposed cases the preference is not 'undue' or the discrimination 'unjust.' This is clearly so, when it is considered that the lesser charge upon which both the assumption of preference and discrimination is predicted is sanctioned by the statute, which causes the competition to give rise to the right to make such lesser charge. Indeed, the findings of fact made by the Commission in this case leave no room for the contention that either undue preference in favor of Nashville or unjust discrimination against Chattanooga arose merely from the act of the carriers in meeting the competition existing at Nashville. The Commission found that if the defendant carriers (the southern roads) had not adjusted their rates to meet the competitive condition at Nashville, the only consequence would have been to deflect the traffic at the reduced rates over other lines. From this it follows that, even although the defendant carriers had not taken the dissimilarity of circumstance and condition into view, and had continued their rates to Nashville just as if there had been no dissimilarity of circumstance and condition, the preference in favor of Nashville, growing out of the conditions

there existing, would have remained in force, and hence the discrimination which thereby arose against Chattanooga would have likewise continued to exist. In other words, both Nashville and Chattanooga would have been exactly in the same position if the long- and short-haul clause had not been brought into play.

“That, as indicated in the previous opinions of this court, there may be cases where the carrier cannot be allowed to avail of the competitive condition because of the public interests and the other provisions of the statute, is of course clear. What particular environment may in every case produce this result cannot be in advance indicated. But the suggestion of an obvious case is not inappropriate. Take a case where the carrier cannot meet the competitive rate to a given point without transporting the merchandise at less than the cost of transportation, and therefore without bringing about a deficiency, which would have to be met by increased charges upon other business. Clearly, in such a case, the engaging in such competitive traffic would both bring about an unjust discrimination and a disregard of the public interest, since a tendency toward unreasonable rates on other business would arise from the carriage of traffic at less than the cost of transportation to particular places. But no condition of this character is here in question, since the Commission find as follows: —

“‘There is a conceded margin of profit in the rates

now in force to Nashville and Memphis, with reference to the additional expense incurred in carrying eastern traffic to those destinations, but whether that margin affords reasonable compensation for the service thus rendered cannot be determined from the evidence.'

"And the fact thus established was not controverted either in the opinion of the circuit court or in that of the circuit court of appeals, and is not now denied. Applying the principle to which we have adverted to the condition as above stated, it is apparent that if the carrier was prevented under the circumstances from meeting the competitive rate at Nashville, when it could be done at a margin of profit over the cost of transportation, it would produce the very discrimination which would spring from allowing the carrier to meet a competitive rate where the traffic must be carried at an actual loss. To compel the carriers to desist from all Nashville traffic under the circumstances stated, would simply result in deflecting the traffic to Nashville to other routes, and thus entail upon the carriers who were inhibited from meeting the competition, although they could do so at a margin of profit, the loss which would arise from the disappearance of such business, without anywise benefiting the public."

In *Interstate Commerce Commission v. Louisville and Nashville Railroad Company*,* the Supreme

* *United States Reports*, Vol. 190.

Court of the United States upheld the competitive-point, or basing-point, system as it exists at the South, as the outcome of the efforts of the railways to regulate the competition among themselves and to make their rates conform to that regulated competition. Thus was defeated another long-continued series of efforts of the Interstate Commerce Commission to use the power to fix rates and the power to condemn an existing rate for the purpose of making "laws of wide import, destroying some branches of commerce that have long existed, and undertaking to change the laws and customs of transportation in the promotion of what is supposed to be public policy."* The law of wide import which the Commission had sought to enact in this case was that the basing-point system should be wiped out.

* *United States Reports*, Vol. 162, *Interstate Commerce Commission v. Texas and Pacific Railroad Co.*

CHAPTER VII

THE DECISIONS OF THE INTERSTATE COMMERCE COMMISSION (CONTINUED)

*The Doctrine that no Place may be deprived of the
Advantages accruing to it by Virtue of its Geo-
graphical Position*

ANOTHER doctrine developed by the Interstate Commerce Commission is that no place may be deprived of the advantages accruing to it by virtue of its geographical position. This doctrine, stated in the terms that reveal its monstrous nature, is that no place may be relieved of the disadvantages under which it labored before the railway had been invented. It originated in the Middle Ages, when the English Parliament began to improve the highways, so that landowners distant from London might be enabled to bring to that city hay, grain and other farm produce. On that occasion the landowners in the immediate vicinity of London protested that Parliament had no right to improve the highways and thus deprive them of the advantages that had accrued to them by virtue of their geographical position in the days when the highways had been so wretched as to

preclude the shipping of farm produce over long distances. The late Mr. Simon Sterne, who held that the railway was a highway, and sought guidance for the solution of modern problems in the study of the law cases of the Middle Ages, tried to foist this doctrine upon the United States. In conjunction with Mr. F. B. Thurber, he organized the Anti-Monopoly League of New York, which stood for two things: "the right of a man 20 miles from a market to bring his product to market over a highway (*i.e.* a railway) at a less rate of toll than he who is 30 miles away, . . ." and the doctrine that "the railways have no right to conspire to wipe out and destroy the natural advantages of our great city (New York) and place us upon a level with Boston, Baltimore and Philadelphia."

Since sometime in the fifties the railways leading to New York City and the neighboring cities have made a single group rate or postage-stamp rate on all milk and cream sent to New York. The distance over which milk and cream were shipped was increased with the growth of the cities in question; and by 1895, the railroads west of the Hudson River were carrying milk to New York from points 417 miles distant. In the year just mentioned, The Milk Producers' Protective Association,* consisting of 600

* *The Milk Producers' Protective Association v. The Delaware, Lackawanna and Western Railroad Co., et al.*, in *Decisions of the Interstate Commerce Commission*, Vol. VII.

producers of milk in the immediate vicinity of New York, complained that the group rate was subjecting them to undue discrimination and was extending an undue preference to the more distant producers of milk. Thereupon the Interstate Commerce Commission broke up the group rate of 32 cents per 100 pounds of milk and 50 cents per 100 pounds of cream. It ordered the railways to make the following charges on milk and cream: for the first 40 miles, 23 cents on milk and 41 cents on cream; for distances between 40 miles and 100 miles, 26 cents on milk and 44 cents on cream; for distances between 100 miles and 190 miles, 29 cents on milk and 47 cents on cream; and for distances over 190 miles, the old rates of 32 cents on milk and 50 cents on cream.

The Commission said: "There has been uniformity in charge and absence of uniformity as to service (*i.e.* differences in the length of haul) and traffic inducements on the lines west of the Hudson River. Natural disadvantages of more distant producers have been thereby overcome, and producers nearer the market have been denied recognition of their more favorable location. Under the present system, the amount of the uniform transportation charge is made the subject of agreement between the principal carriers west of the Hudson River, and the cost to dealers in the city market of milk brought over both long and short distance is thereby practically or nearly equalized. This situation facilitates agree-

ments among the dealers as to the price paid to producers, and it does not operate to prevent them from fixing a standard scale of charges to the different classes of consumers. Benefits which may accrue to New York City consumers under the uniform milk rate would apparently be enhanced rather than diminished under transportation rates properly graded or grouped, and no higher than reasonable from the more distant sources of supply." The statement contained in the last sentence is an unsupported assertion; but in such unsupported assertions the records of the Commission abound.

"The findings demonstrate . . . that the addition of new territory, in connection with the methods adopted for developing the business,* has operated to the prejudice of the old territory. The near-by section, comprised within a radius of 100 miles of New York by direct lines, has participated but little in the more than 47 per cent increase in the New York supply during the 10 years including 1895. While this is partly due to diversion of land in that section to other than dairy uses,† much of it is directly ascribable to the transfer of the patronage of many New York dealers to the distant producers, resulting from inducements offered by the long-distance roads.

* That is, the free icing of milk in transportation; through solicitation by railway agents; through facilities in the way of receiving stations, where milk is kept at a uniform temperature of 40° Fahrenheit until it is shipped; and material aid to dealers and others in the establishment of creameries in the more distant localities.

† That is, suburban residences.

It is probable that in course of time the milk demand in the New York market will equal the producing capacity of all the various localities included within the present uniform rate territory, and this is considered in the findings; but it is also probable that the carriers will be able, through improved transportation methods, to bring milk daily over much greater distances than they do now, and deliver it at their New York City terminals in good condition and at a suitable hour. The course of the West Shore, in recently extending the uniform milk rate to a point near Buffalo, so as to cover a total distance of 417 miles from its Weehawken terminal, illustrates this view. The interests of all milk producers, whether located within 50 or 250 miles of New York City on any of the lines, in retaining the share of their traffic to which their nearer location would naturally entitle them, are plainly imperiled under a uniform rate for transportation service. . . .

“But whether the area of supply has been unnecessarily increased or not under the uniform rate and the practices of the carriers, the right of producers nearer the market to a rate which is reasonable in itself for the service rendered, and relatively reasonable as compared with the rate charged for the service to other producers of milk, must be upheld. . . .

“The present system of a uniform or blanket rate on milk and also on cream from all stations on the various defendant lines west of the Hudson River

must be held unlawful under both sections 1 and 3 of the Act to Regulate Commerce, and the resulting unreasonableness, injustice and wrongful prejudices and preferences should be corrected."

In this case the reasoning of the Interstate Commerce Commission rested upon the doctrines that the amount of milk offered to New York City must not be allowed to exceed "the natural demand," lest the price of milk should fall below a "just price" — in other words, the Interstate Commerce Commission undertook to fix the price which the people of New York should pay for milk. It apparently held that dairy farmers upward of 40 miles from New York must not be allowed to meet any of the growing demand of New York for milk, until the farmers less than 40 miles away had supplied their "natural" share of that increased quantity; that districts upward of 100 miles away must not be allowed to come in until after the districts between 40 miles and 100 miles distant had supplied their "natural" share, and so on. In this connection it is instructive to note that one reason why the New York dealers did not buy more milk of near-by farmers was that some of the latter persisted in feeding brewery swill to their cows. By implication the Commission decided how much milk from cows fed on brewery swill the people of New York must consume before they should have the right to avail themselves of the services of the railways which were ready to bring milk from distant regions.

It is needless to say that every one of these doctrines is not only untenable, but absolutely and unqualifiedly in violent opposition to the practices by means of which the United States has been settled and developed. Moreover, even if the doctrines in question were tenable, they could not be carried out. To seek to determine the "natural demand" of New York City for milk, the "just price" of milk, and the share in the increasing trade in milk to which each successive outlying region is naturally entitled by virtue of its geographical position, is as idle as were the discussions of the schoolmen of the Middle Ages as to how many angels could dance on the point of a needle.

The railways had aimed to fix the group rate so that the total receipts upon the total traffic should be remunerative; and no evidence was introduced to show that the traffic was unduly remunerative. The traffic is exceptionally expensive to handle, and can be made to pay only if it can be increased to large proportions. But it cannot be increased to large proportions, unless the charge shall be kept down to such a point that it will be worth the while for the farmer who is a long way from New York to go into the dairy business. That charge, in turn, cannot be kept down, unless the charge to the near-by farmer can be kept up. Therefore such cutting into a group rate as the Commission practised in this case tends to leave unremunerative the group rate so operated upon, and thus is likely to discourage the railways from

extending existing group rates or establishing new ones.

Two and one-half years after the Commission had broken up this group-rate on milk and cream shipped to New York, the president of one of the railroads involved reported that the Commission's order had reduced the earnings of his company by \$30,000 a year; and this must have gone to the middlemen, for the farmer had been receiving, if anything, less for milk, there having been in no case an advance to the farmer, while there had been no decrease in the price paid by the consumer.*

In Germany the State ownership of the railways has led to the establishment of the doctrine that no producer or trader may be deprived of the advantages accruing to him by virtue of his geographical position. In Germany they have no group rates on milk. And in the year of Our Lord, 1902, the firm of Von Bolle was stabling within the city of Berlin 14,000 milch cows, which supplied milk to 50,000 families. In addition, there were in the suburbs of Berlin hundreds of dairies, each one stabling a considerable number of milch cows.†

Had the Interstate Commerce Commission of the United States been in existence in the fifties, when the first group rates were established in a tentative

* *The Forum*, March, 1902, Mr. W. D. Hines, First Vice-President Louisville and Nashville Railroad.

† *Zeitung des Vereins Deutscher Eisenbahn-Verwaltungen*, October 29, 1902.

way, and had it slashed into the revenues to be obtained from it in the manner in which it did in 1895, it is more than probable that the practice of making group rates would have come to an end then and there, and the people of the United States would not have come to enjoy the fruits of one of the most beneficent practices established by our railways.

This matter is of sufficient importance to justify a digression, for the purpose of showing the part that group rates can be made to play in the development of a country. About 20 years ago large and small creameries were established in almost every county in the eastern half of Nebraska. They were managed as joint-stock companies and as coöperative enterprises, the local farmers furnishing perhaps a majority of the capital; but more than three-fourths of them failed because of poor management or insufficient supplies of milk and cream. They were replaced by concerns of which the Lincoln creamery is a type. The concern in question began in 1890 by sending wagons into the country districts to gather cream. Later on it established feeders in thickly settled districts a few miles away, collecting cream and bringing it in bulk to its various creameries, seven in number. In 1897 it consolidated its various plants into one creamery at Lincoln, organizing stations for the collection of cream all along the railways leading from Lincoln. At present it draws upon the whole

Group Rates build up the Largest Creamery in the World.

of southern Nebraska and on parts of northwestern Nebraska, Colorado and Kansas, the nearest collecting station being 6 miles from Lincoln, and the most distant one being 418 miles away. This creamery is said to be the largest one in the world, and it pays such high prices for cream that it has driven from the field which it covers all of the old-fashioned coöperative creameries.

It is suggestive to note that its business has been made possible by the fact that the cream is shipped under group rates on express trains, at a speed of 30 miles an hour.* The proprietors of rival creameries in western Iowa complain, however, that this practice violates all the canons of natural law, in that it creates at Lincoln, Neb., a market for cream which is produced in Iowa and should, therefore, be made into butter in Iowa creameries. This complaint must have the sympathy of the Interstate Commerce Commission, as well as of the Iowa State Railroad Commission, which announced, in 1891, that the dairy farmers of eastern Iowa "paid tribute to Chicago," when they purchased hay and grain at Chicago.

The Mobile and Ohio Railroad Co. operates a road from Mobile, Ala., to East St. Louis, Ill., a distance of 644 miles. Some time ago it made a group rate of

* *Report of the Industrial Commission on the Distribution of Farm Products.*

70 cents per 100 pounds on first-class vegetables shipped to East St. Louis from any point between Verona, 369 miles south of East St. Louis, and Prichard, 641 miles south of East St. Louis. Beginning at Tupelo, the first station north of Verona, the rate was gradually reduced, becoming, at Tupelo, 65 cents; at Humboldt, 52 cents; and at Columbus, 30 cents. Humboldt is 241 miles south of East St. Louis, and Columbus is 175 miles from East St. Louis. Vegetables raised south of Verona come into the market earlier than those raised in the vicinity of Verona, and for that reason command a higher price. Those raised at Humboldt and points north of Verona come into the market somewhat later and, for that reason, do not command quite so good a price. The Mobile and Ohio Railroad Co. had made the group rate under consideration for the purpose of fostering the cultivation of vegetables in the territory covered by the group rate, and it had succeeded in building up "a very large traffic in vegetables." The rate in question had been fixed at 70 cents, in order to meet the competition of vegetables shipped north from New Orleans.

In 1897 one W. R. Rea complained before the Interstate Commerce Commission* that the Mobile and Ohio "by making a group rate from Verona to

* *W. R. Rea v. The Mobile and Ohio Railroad Co.*, in *Decisions of the Interstate Commerce Commission*, Vol. VII.

Prichard, a distance of 271 miles, discriminated against Verona as in favor of points farther south, and insisted that the shipper from such points enjoyed the benefits of an earlier market and of the same rate for a much greater distance."

The Interstate Commerce Commission, in the course of its opinion, said: "There are probably circumstances under which a group rate of this kind might be justifiable. It is possible that this particular rate, when all the facts and circumstances appear, may be justifiable; but we think that in a total haul of 640 miles, a rate which for the first 271 miles is the same, and which in the next 200 miles falls from 70 cents to 30 cents upon second class freight, and from 44 cents to 22 cents upon third class freight, is *prima facie* unjust and unreasonable and a discrimination against the nearer points in the group; that in the present case the rates from Verona of 70 cents on second class freight and 44 cents on third class freight are unreasonable and unjust and discriminating as to Verona."

"At the same time, we are not furnished with the necessary information to determine what would be a reasonable rate from this point; and we have concluded to make no order in the matter for the present, but to rely upon the defendant so to adjust its rates in accordance with this suggestion as may be reasonable and just, holding the case open with leave to the complainant to apply for an order in this respect, and

with leave to either party to introduce further testimony, if so advised."

In this case the Commission held that the Mobile and Ohio Railway must not enable people to make their living by raising vegetables on the large tract of land between Verona and Mobile, except on the payment of the penalty of reducing all its rates between Verona and East St. Louis.

Other arguments in favor of such rate practices are of very considerable importance. For example, the New York *Evening Post* has most pertinently said: "Old prejudices die hard, but there is no influence so fatal to them as united commercial interest. The theory may be hazarded that railroads, refrigerator cars and early strawberries and asparagus have done far more to render the politician's 'waving of the bloody shirt' innocuous and unprofitable in this country than the Spanish-American War itself; and have discounted in influence all the sermons preached on brotherly love since the Civil War ended. These things have brought about a movement of Northerners to the South." And yet, when some one complains of the rate practices by means of which the South is being developed, the North and the South are being reunited, and the luxuries of the last generation are made common articles of diet with the present generation, the Interstate Commerce Commission can see nothing more than that some one is being deprived of the advantages due to him by virtue of his geographical position.

In 1888 the Northern Pacific Railroad made a group rate of 32.5 cents per 100 pounds on wheat shipped to Portland, Ore., from any point between Connell, Wash., and Julietta, Ida. This group rate, covering a territory of 215 miles, the railway made in order that it might "sell its land more distant from markets, at better prices." In 1891 some farmers at Ritzville, located within the group district, and about 90 miles eastward of Connell, petitioned the Interstate Commerce Commission to order that this rate be 16.25 cents, alleging that the rate of 32.5 cents was "excessive, unjust, and unreasonable."*

The Commission broke up the group rate, being influenced by several considerations. One of them was: "The practice of making one rate on the same product over a very large district, and thus equalizing the burdens of transportation to the same market, is only justifiable under special and exceptional circumstances. This practice is not to be encouraged when, as in the case under consideration, the difference in the transportation expense from the various parts of such district is considerable and substantial."

A further reason why the Commission broke into the group rate was that a group rate extending over

* *Interstate Commerce Reports*, Vol. VI, *A. S. Newland v. The Northern Pacific Railroad Co., et al.*

200 miles "afforded to grain growers, hundreds of miles nearer to market, no compensation for the advantages of their location."

We thus find the Interstate Commerce Commission breaking up group rates, or postage-stamp rates, on the Atlantic seaboard, in the Gulf States and on the Pacific coast.

In consequence of the fierceness of the competition between the railways leading from the trans-Mississippi territory to the Atlantic seaboard ports and the Gulf ports respectively, the rates on corn for export, in 1889, became 13.5 cents per 100 pounds from the Mississippi River, and 16 cents from Chicago, though the distance from the Mississippi River to the Atlantic seaboard was 116 per cent of the distance from Chicago to the Atlantic. The reason for the discrimination in favor of corn raised west of the Mississippi River and against corn raised east of the Mississippi was that the competition of the Gulf lines did not extend to the carriage of the latter corn. The Interstate Commerce Commission* thereupon ordered that the aggregate rate from the trans-Mississippi farm to the Mississippi River and thence to the Atlantic seaboard must never become less than the aggregate rate from the Illinois farm to Chicago and thence to the Atlantic, lest Illinois be deprived

* *Interstate Commerce Reports*, Vol. VIII, *Export Rates from Points East and West of the Mississippi River*.

of "the natural advantage of her geographical location as compared with the trans-Mississippi country." This ruling the Commission should properly have made under the so-called long- and short-haul clause of the Act to Regulate Commerce. But since the Commission could not make that ruling under the long- and short-haul clause as construed by the Supreme Court, it made the ruling under the clause which forbids the railways making rates which shall subject any locality "to any undue or unreasonable prejudice or disadvantage in any respect whatsoever." So far as the ruling was observed, it curtailed the power of the Atlantic seaboard lines to compete with the Gulf lines, and correspondingly deprived the farmers of the trans-Mississippi country of the benefit of that competition — that is, of the lowering of the minimum of the cost of moving corn from the farm to Liverpool. These *obiter dicta* of the Commission compel the conclusion that, if the Commission had had the power, it would have prevented the rates from the Mississippi from becoming lower than the rates from Chicago; that it would have issued an order designed to conserve to Illinois "all the natural advantage of her geographical location as compared with the trans-Mississippi country," and designed also to prevent the transfer to Omaha and other western cities of any part of the grain business of Chicago. In other words, the Commission would have precipitated a conflict of interests between

Illinois and the trans-Mississippi country, between Chicago and Omaha and other western cities.

Had the Interstate Commerce Commission been established at the close of the Civil War, it would with cheerful readiness have ruled in the seventies that to New York, Pennsylvania and Ohio must be conserved "all the natural advantages of their geographical location as compared with" Kansas and Nebraska. The doctrine suggested in the New York milk case, that the railways must not make the rates on milk so low as to encourage unduly the production of milk, would have been developed into the doctrine that the railways must not bring into the market so much western wheat as to depress the price of wheat in the world markets below the "just price"; and the Commission probably would have ruled that \$1.25 a bushel was the "just price," since that was the price required to sustain the value of eastern farm lands at the level of 1876.

CHAPTER VIII

THE DECISIONS OF THE INTERSTATE COMMERCE COMMISSION (CONCLUDED)

Pandora's Box

LET us consider next a body of decisions which show the political danger inherent in the exercise by the Government of the power to fix railway rates.

In 1891 the real estate operators and the jobbing merchants of Minneapolis, and to some extent the millers of Minneapolis, became alarmed lest Duluth should impair the ascendancy of Minneapolis as a milling centre and, by reflex action, as a jobbing centre, for the farmer tends to buy his supplies where he sells his produce.* The Mississippi River no longer furnished all the power needed by the Minneapolis mills, and the cost of coal was \$1.50 a ton more in Minneapolis than in Duluth, because the latter city was located directly upon Lake Superior. So far as the future growth of business was concerned, the prospects seemed to be in favor of Duluth. That fact was expressed in the *Annual Report of the Trade and Commerce of Duluth*, for 1892, in the statement

* *The Railroad Gazette*, September 18, 1891.

that the year 1892 would long be remembered as the year in which Duluth "toppled over the framework of preëminence built up by Minneapolis." And to that statement the jobbing merchants had added: "Duluth's competitors (Minneapolis and St. Paul) may kick and howl, but never again shall they see goods delivered from the eastern seaboard to inland cities (Minneapolis and St. Paul) as cheaply as they are brought to the city, at the head of the greatest stretch of inland navigation in the world." The situation thus summed up appeared so serious to Minneapolis that the Chamber of Commerce, "organized to advance the general prosperity and business interests of the city of Minneapolis," decided to invoke the power of the Federal Government to check the growth of its boastful rival, Proctor Knott's "Zenith City of the Unsalted Seas."

The railways of the Northwest, after much warring of rates, had agreed upon a division of the competitive grain traffic between Duluth, Minneapolis, Milwaukee and a number of minor points lying immediately to the west of Lake Michigan. That division of the traffic provided, among other things, that from a large territory in North and South Dakota and Minnesota the rates on wheat should be the same to Minneapolis and to Duluth, though numerous points in the territory in question were from 7 per cent, or 20 miles, to 30 per cent, or 106 miles, nearer to Minneapolis than to Duluth. Of these equal rates the

Chamber of Commerce of Minneapolis complained before the Interstate Commerce Commission,* alleging that they subjected Minneapolis to undue and unreasonable prejudice and disadvantage.

The Commission ordered that the rates in question be made from 7 per cent to 30 per cent lower to Minneapolis than to Duluth. In the course of the opinion the Commission said: "It can hardly be doubted, in view of the testimony, that under the present adjustment of rates on wheat the milling interests of Minneapolis, and with them its general prosperity, and possibly its population, must decline. So far as such a result would be attributable solely to the greater natural advantages of Duluth as a point for manufacture and shipment of flour, nothing perhaps could properly be done to avert it. Duluth is nearer to the markets than Minneapolis, and to this extent its advantages cannot and ought not to be denied or taken from it. But on the other hand, Minneapolis is nearer to the wheat fields than Duluth, and to this extent it is entitled to the advantage over Duluth which, on that account, should naturally belong to it. This natural advantage is denied to Minneapolis in the present adjustment of railroad rates, as between it and Duluth, from the wheat fields. . . . As a general rule it is probably

Relative Prosperity regulated by a Distance Tariff

* *Interstate Commerce Reports*, Vol. V, *The Chamber of Commerce of Minneapolis v. The Great Northern Railway Co., et al.*

true that rates should not be proportioned strictly to mileage, . . . This is due largely to the fact that the terminal expenses which do not vary with distance constitute a considerable part of the entire charge in either case and operate to reduce the ton-mile rates on a longer haul.

“But this consideration in the present case seems to be fully balanced, perhaps more than balanced, by the fact that *back-loading*, which is also a powerful element in the establishment of rates, is so much more certain, and the west-bound traffic so much more profitable, from Minneapolis than from Duluth.”

At the very moment when the Commission thus reckoned the ascendancy of Minneapolis over Duluth, in the matter of heavier shipments of general merchandise westward, as a salient circumstance or condition toward the proper determination of rates, the railways and the merchants of Duluth were moving heaven and earth to overcome that ascendancy. In fact, at that very moment, “a vast proportion of the coal, salt, lime, cement, heavy iron and hardware, sugar and other staple groceries, received and stored in Duluth, were received and stored there on account of St. Paul and Minneapolis merchants, who delivered their merchandise to their customers from their Duluth warehouses.” *

In this case the Commission undertook to regulate

* *Annual Report of the Trade and Commerce of Duluth*, for the year 1892.

the relative prosperity and the relative rates of growth of two great cities; and for that purpose it ordered the adjustment of rates on a distance basis absolutely. What it had to say about back-loading was an afterthought, brought in to support its ruling after it had made up its mind what that ruling should be. Its reasoning upon this point also was so loose that it cannot be deemed to constitute an argument. And finally, in a similar decision rendered shortly afterward, the Commission made no use of the back-haul argument.*

If Milwaukee, Duluth and the other northwestern cities had imitated the course taken by Minneapolis, all the rates in the Northwest would have had to be readjusted. For the Commission's adjustment of rates on a mileage basis pure and simple would have given Duluth the advantage over Minneapolis in certain territory northwest of Minneapolis, and would have given Milwaukee the advantage over Minneapolis in certain regions southwest of Minneapolis. It would appear that Minneapolis itself ultimately had come to realize that fact. For in 1905 Mr. Congressman Stevens, of Minnesota, a member of the Committee on Interstate and Foreign Commerce of the House of Representatives, stated that the Chamber of Commerce of Minneapolis had informed

* *Interstate Commerce Reports*, Vol. VII, *Chamber of Commerce of the City of Milwaukee v. Chicago, Milwaukee and St. Paul Railway Co., et al.*

him that it had requested that the Commission's order be not enforced, "for the reason that if the same policy were pursued (by the other cities) Minneapolis would get no advantage from the southwestern trade and Duluth would get all the advantage from the northwestern trade." *

The doctrine that disputes arising out of the trade jealousies of rival business centres are to be settled by the application of the distance tariff would lead to the readjustment of the entire interstate commerce of the United States, and to the destruction of an enormous percentage of the existing trade relations. To illustrate, the distance from Chicago and Milwaukee to St. Paul is about half the distance from St. Louis to St. Paul. Yet the rates from St. Louis to St. Paul are only 5 per cent in excess of the rates from Chicago and Milwaukee to St. Paul. On low-grade freight the advantage of Chicago and Milwaukee is less than 1 cent per 100 pounds, "and that is very aggravating to the people interested in shipping from Milwaukee to St. Paul." † If the Esch-Townsend Bill should become the law, and thereupon Milwaukee should bring a complaint before the Interstate Commerce Commission, that body would be bound to make a ruling that would exclude St. Louis from the

* *Hearings before the Committee on Interstate and Foreign Commerce of the House of Representatives*, 1905, p. 343.

† *Hearings before the Committee on Interstate and Foreign Commerce of the House of Representatives*, 1902, p. 387, Mr. A. C. Bird, Third Vice-President, Chicago, Milwaukee and St. Paul Railway.

trade of St. Paul. If the Commission should decline to follow the precedent established in the decision just reviewed, we should no longer have a government of laws, but should have a government of men. Our interstate commerce would be regulated, not in accordance with law, but by the dispensing power of the Interstate Commerce Commission.

Shortly after the foregoing decision had been made the Chamber of Commerce of Milwaukee asked the Interstate Commerce Commission* to secure to it

*The Bitterness of
Local Jealousies* that advantage due to it by virtue of the fact that Milwaukee was nearer to certain wheat-growing areas in Minnesota and Iowa than was Minneapolis. The Commission, adopting once more the mileage test, ordered that the rates be readjusted to the advantage of Milwaukee and to the disadvantage of Minneapolis.

Before the Committee on Interstate and Foreign Commerce of the House of Representatives, Mr. A. C. Bird, vice-president of the so-called Gould lines, on January 23, 1905, gave an exceedingly instructive account of this contest between Milwaukee and Minneapolis.† Said Mr. Bird: "The case was heard, perhaps three times — at least twice. It was thoroughly discussed in a liberal manner, in a friendly

* *Interstate Commerce Reports*, Vol. VII, *Chamber of Commerce of the City of Milwaukee v. Chicago, Milwaukee and St. Paul Railway Co., et al.*

† Compare: *Hearings before the Committee on Interstate and Foreign Commerce of the House of Representatives*, 1902, p. 386, Mr. A. C. Bird, Third Vice-President, Chicago, Milwaukee and St. Paul Railway.

spirit, between the Commissioners and the railroad people. There was no bitterness manifested. There was bitterness, however, between the rival chambers of commerce. It was a fight for supremacy; it was a fight which is going on all over this broad land. Finally the railroad companies told the Commission: 'We cannot do it; you have laid down a rule for us to determine the differential. We are perfectly satisfied to accept your rule, but we cannot apply it practically. There are difficulties with the geography of the railroads that prevent a reasonable adjustment of the rate, prevent such an adjustment as everybody has a right to expect. Therefore, if the Commission will fix the tariffs from all this producing territory to Milwaukee and Minneapolis, respectively, we will put them into effect; we will put in force these rates.' And the Commission said they were not competent to do that.

"Now, following that, the railroad companies made another proposition. 'We will select one or two or three members from each of these boards of trade or chambers of commerce, and if they will agree upon these tariff rates we will adopt those rates.' And the effort was made. That committee did agree in a restricted territory. . . . But they utterly failed to agree in the whole territory, and neither party was satisfied and nothing was done, and that case has not been settled." That is, although the Commission had made its order in January, 1898, in January,